

Horse Matters.

Dates of Trotting Meetings in Michigan

Detroit	June 24 to 27
Evart	June 25 to 27
Mt. Pleasant	July 2 to 4
Ludington	July 2 to 4
Big Rapids	July 9 to 11
Charlotte	July 16 to 18
Marquette	July 16 to 18
Grand Rapids	July 22 to 25
Battle Creek	July 22 to Aug. 1
Marshall	Aug. 5 to 8
Jackson	Aug. 13 to 15
East Saginaw	Aug. 19 to 21
East Pleasant	Sept. 2 to 5

CARE OF BROOD MARES.

The other day a well known stock breeder was in the FARMER office, and among other things that came up for discussion was the question of the care of brood mares. This gentleman is also interested in lumbering, and consequently has had some considerable experience with draft stock. He said when he first began lumbering he thought he might as well secure some good mares, so that when the season in the woods was over they could be utilized in breeding. For this purpose he went to Canada and purchased some good heavy mares, well up in Clyde blood, and bred them to good horses. He reasoned that the best way would be to breed them late, so that the colts would come early, thus avoiding using the mares while heavy with foal. When the mares came out of the woods, he cut down their feed, and let them run at grass, as he had heard so much against over-feeding brood stock. For a couple of years he worked upon the plan given above, and the result was anything but satisfactory. His colts came weak and ill-shaped, and he was at a loss for the reason. Some talks with a physician induced him to radically change his methods. He began by breeding his mares earlier, so as to have them well along before they went into the woods, as the physician assured him that it was the first months of pregnancy that was the most severe tax upon the animal's system. He also concluded to change his system of handling the mares after they came out of the woods. Instead of cutting off their rations of grain and giving them only bran and keeping them on grass, he gave them good rations of oats, bran and hay, and keep them off grass. The results were all that could be desired. His mares did better, the colts came stout, vigorous and healthy, and grew well. He said he had completely changed his opinion about feeding brood stock, and now kept his in good condition. Animals, he found, wanted plenty of good food at such times, but not fattening food, to keep up their strength and make their progeny healthy. We are of the opinion that the experience of this breeder is the same as that of many others, and that fear of over-feeding has done as much injury among breeders as feeding too much. It is the quality of the food that requires to be looked after, and when that is all right animals are not likely to be injured by getting all that is necessary to keep them in good condition. It is flesh and muscle forming food breeding animals require, not fattening food.

Interfering Horses.

Many horses are in the habit of striking with one leg against another; and much of ingenuity has been exercised to provide a remedy for the troublesome practice. Both fore and hind legs are subject to it, the latter, perhaps most frequently; but in them it is confined to the fetlock joint, whereas in the fore legs, the horse may hit either the fetlock, the leg just above the pastern, or just under the knee, where it is called a speedy cut, from its occurring chiefly in fast action.

It is desirable, before applying a remedy, to ascertain, if possible, the cause, and the part which strikes; whether the shoe or the foot, and, if the latter, what part of it. Many horses strike from weakness, and cease to do so when they gain strength and condition. This is more particularly the case with young horses; others cut from a faulty conformation of the limbs, which are sometimes too close to each other; again the toe is turned too much out, or in. When turned in, the strike is usually just under the knee. The object to be kept in view, in shoeing such horses, must be to remedy the faulty action, and to remove, if possible, the part which strikes, which is generally that portion of the foot between the toe and the inside quarter—sometimes the inside quarter itself, but very rarely the heels of the shoe. If the horse turns his toe in, in all probability he wears the inside of the shoe most; if so, it should be made much thicker than the outside; if the contrary, the outside heel should be the thicker. The shoe should be leveled off on the inside quarter, which should also be free from nails.

In the hind legs we often find a three-quarter shoe will prevent striking, when other plans fail, for here the striking part is not so far forward as in the fore legs, so that the removal of the iron altogether, from the inside quarter, will often accomplish the aim. It sometimes happens that no plan will prevent interfering, and then the only recourse is the boot or the pad.—N. H. Paars, V. S.

Oats for Horses.

The Iowa Homestead says: "There is good reason for the universal popularity of oats as food for horses. No other grain save wheat contains so large a proportion of the albuminoids, which give strength for work. In this respect oatmeal is superior to the finer starchy portions of wheat, which, under old processes of grinding, was about all that went into flour. By the new method of grinding, the gluten is secured so entirely that it leaves the bran very poor and unwholesome. Potatoes, which are now so universally used morning, noon and night, are mainly starch and water. Their bulk also is large in proportion to the nutriment that they contain. Perhaps the extensive use of potatoes as food is

one reason why men who now work on farms cannot do the big day's work that their fathers used to boast of doing.

Horse Gossip.

DILLON BROS., of Normal, Ill., write us that the first importation of Norman horses this season, numbering forty-nine head, arrived there June 18th. They were only thirteen days on the Atlantic, and are looking finely. This importation is said to comprise some extra fine representatives of the breed.

It is asserted that the hay made from wild prairie grass will not give horses the heaves. A gentleman who has lived in the West for many years says that he never saw horses affected with this disease until after the introduction of tame grass for meadows. Heaves may not be easily cured, but if farmers will wet the hay a very little and shake it well, it will remove the dust and in some cases prevent heaves. This is more important during dry, windy weather of spring.

The London Live Stock Journal says: "The burning to death of 170 horses, the property of the Glasgow Tramway Company, at North Street, Glasgow, makes us revert to a note we made in these columns regarding the fire at Mr. Whiteley's in Westbourne Grove, viz., that an arrangement should be devised whereby, in cases of fire, the whole of the animals might be freed by the turning of a handle placed at the outside. At this disastrous fire several horses were saved at the imminent risk of men's lives engaged in the work; and it was made apparent that if doors could have been opened at the commencement, and the whole of the animals freed by the unsacking of their stable halters, they would have found their way to the streets. As it was they were burnt alive."

The old time trotting gelding Scotland, record 2:29½, by the thoroughbred horse Bonnie Scotland, and out of Waterwitch, the dam of Mambrino Gift, 2:30, by Pilot Jr., recently took part in a ten-mile race at Philadelphia, against a bicycle rider. The horse beat the bicycle something like a quarter of a mile, the time being 36:58.—Brookfield Gazette.

There must be an error in the above item. The Gazette is authority for the statement that a thoroughbred cannot be a sire of trotters, although we have two thoroughbreds in this State, without a trace of trotting blood in either, both sired by Bonnie Scotland, and with records of 2:30. One of them was a noted runner before he was trained as a trotter, and in one instance the owner of a trotting horse protested him because he was a thoroughbred, and had no right to compete with trotters!

Turf and Track.

JAY-EYE SEE is reported to have trotted a mile in 2:13 last week, in a trial over the Cleveland track.

BURNS, the well known trotting horse owned at East Saginaw, dropped dead last week on the track while being speeded.

TRURO, the Michigan pacer, by Hamlet, had one of his legs badly strained at Kalamazoo, and will not start again this season.

W. T. COWHAM, Jackson, owner of Truro, the pacer, has bought a half interest in the trotter A. V. Pantland. Consideration, \$4,000.

A grand horse racing tournament, with over \$2,000 in prizes, will be held in July, under the auspices of the Detroit Driving Park Association.

The five-year-old horse King of the West, is said to be showing great speed in his trial work. He is by Hamadallah, a son of Hamlet, and his dam was Trotting Sister by Alexander's Abdallah.

KEEP YOUR EYES upon Tecumseh, by Mambrino Gift this season. He only trotted third in the 3:30 class at Kalamazoo, but he has not got down to business yet. The time in that race, which was won by Mambrino Sparkle, was 2:24 1-2, 2:23 1-2 and 2:24 1-2.

Hood's Sarsaparilla is the best blood purifier," says Mr. E. S. Phelps, Worcester, Mass.

The Farm.

A WORD IN SEASON.

We find the following extract in the *Breeders' Gazette*, and it is so much in consonance with what we have observed in watching the growth of the stock interest in this State, that we think it worthy the attention of our breeders of all classes of stock:

"A lot of plainly bred young Shorthorn bulls, in rather poor condition, were sold by Colonel Muir for Theo. Huston & Co. at Kansas City last week for an average of about \$75. There would probably have been more money in them to the owners, and more credit would have resulted to the breed, had the lot been steered and fed for the market or for show. Try and send more strictly good ones and fewer of the weeds to the beef raisers of the great west, and the reputation of the Shorthorn will be in no danger."

While the above only refers to Shorthorns, it applies equally as forcibly to other breeds of cattle, as well as to sheep and hogs. The Shorthorns have suffered much more from injudicious breeding than any other, simply because they are more popular and more widely disseminated. The call for breeding stock has been so great that everything was kept for that purpose, and had not the merits of the breed been so great as to overcome in a great measure this injudicious course, the Shorthorn ere this would have disappeared. There are to-day hundreds of worthless young bulls, whose destiny should be the butchers' block, being picked up and shipped to the cattle ranges of the west, and it is from them that the western cattle man forms his opinion of the merits of the Shorthorn. The hereof "boom" will result in a precisely similar result if the same course is followed. Speculators will go into breeding when prices are high, who know nothing about the business, and the worthless results will be sent out west to disgust their purchasers. High prices and a big demand are both to-day working to destroy the popularity and merits of the Jersey, the Holstein and the Polled-Angus. The Jersey "boom" will result in filling the country with a worthless lot of brutes without a single point to commend them—sold upon the merits of those whose records have made the breed famous. A good breed will become popular in the face of the most strenuous opposition, but it cannot

withstand the undermining influences of its injudicious and enthusiastic friends. To keep up and improve a breed there must be judicious breeding and careful selection, and if you wish your favorite breed of cattle to retain its popularity, refuse to sell anything for breeding purposes that is not a fair specimen of the breed, or which you would be ashamed to acknowledge as coming from your herd.

Pig-Feeding Experiments.

Prof. E. M. Shelton, of the Kansas State Agricultural College, believes with most breeders of swine that a continuance of the animal food, which nature supplies in the outset of the pig's career is demanded long after the pig has acquired a taste for other food. He also believes that none of the common grains, however prepared, will in that critical period of the pig's life, the second, third and fourth months, give that rapid and symmetrical development of the animal sought by all well informed breeders of swine.

To gain an estimate of the actual value of milk to young pigs, as compared with some other food stuff, experiments were made with ten pure-bred pigs belonging to two litters.

The pigs were arranged in two sets of five each. Nos. 1 to 5 inclusive receiving milk fresh from the cow and wheat shorts, mixed in the form of slops; Nos. 6 to 10 getting shorts and water in the same form. The pigs were fed twice daily, the feed in all cases being accurately weighed, and great care was taken that each animal received just the amount of feed that he required, and no more. All the pigs received whatever water they required. The weight of each pig at the end of each week was taken and recorded.

What may be called the indirect uses of the milk to these young pigs Prof. Shelton concisely states as follows:

"In the case of the pigs belonging to the younger litter, those receiving the milk ration were made ripe and ready for the butcher in 100 days; those receiving the shorts alone were quite unsalable at the end of the experiment."

"The value per pound of the milk-fed pigs was nearly or quite double that of the pigs to which the shorts were fed. The pigs which had received the milk sold at the highest market price, while the pigs which had been fed on shorts alone were, with possibly two exceptions, quite unsalable, except as 'stockers.'"

The pigs to which the milk was fed were started on a career of usefulness; they got an impetus, a momentum, which is not unreasonable to suppose they would not have subsequently lost had they been kept under ordinary circumstances of feed and care.

To the breeder and fancier the advantages obtained by the milk-fed series over the set receiving shorts alone would have appeared even greater than to a farmer or stock raiser interested only in pork making. The pigs receiving the milk were larger of body and in all respects better and more symmetrically developed than the others. Their skins shone as though they had been oiled; while the series receiving shorts, especially the youngest ones, had dull, lustreless, scurfy skins, which gave to them a markedly stunted appearance.

The quality of the flesh of the milk-fed pigs was highly commended by the butchers. It contained a large proportion of lean meat, while the "fat" was well marbled, firm and of that agreeable nutty flavor which characterizes the best quality of pork. This fat did not waste in cooking by changing to oil on the application of heat, as corn-fed pork usually does.

After a careful study of all the facts of this experiment, Prof. Shelton affirms that "the surplus milk of the farm over and above that used in the family of the farmer can, as prices now are, be more profitably fed to young pigs, than applied to any other purpose for which milk is ordinarily sold away from the farm."

Sheep in Kansas.

A correspondent of the *Rural New Yorker* says:

"The Kansas shepherds have, for years past, expended a great deal of care and money in the improvement of their flocks. In no other State have sheep breeders given more attention to this part of their business, and their success has been proportionate. It has been their habit to make visits to each other's flocks for comparison and for information, with the purpose of effecting every possible improvement. How they have succeeded, the results will show. At the recent annual shearing of the Arkansas Valley Wool Growers' Association, a four-year-old ram, Rip Van Winkle, whose live weight is 166 pounds, sheared 39 pounds of wool. A better fleece, however, was that of Lord Wool, the last year's prize ram at the State fair. This ram weighed 163 pounds, and sheared 33 lbs. 13 oz., but the wool is comparatively free from yolk, and will yield more clean wool than the heavier fleece. Two ewes, weighing 118 and 126 pounds, respectively, sheared 24 lbs. 4 oz., and 24 lbs. 5 oz. A two-year-old ram weighing 166 lbs., sheared 37 lbs. 4 oz. of wool; a one-year-old, weighing 128 lbs., sheared 19 lbs.; a three-year-old, weighing 153 lbs., gave a fleece weighing 30½ lbs. Among the other ewes were the following weights and fleeces: 85½ lbs., fleece 24½ lbs.; 90 lbs., fleece 19½ lbs.; and 121 lbs., fleece 18½ lbs."

"At the Butler County sheep shearing the heaviest weights were: rams, 192 lbs., fleece 34½ lbs.; 186 lbs., fleece 27½ lbs.; 164 lbs., fleece 23½ lbs.; 152 lbs., fleece 29 lbs. The ewes here were mostly of light weights of carcass, but had good fleeces, viz.: 137 lbs., fleece 20 lbs.; 116½ lbs., fleece 20½ lbs.; 102½ lbs., fleece 18½ lbs.; this was a two-year-old; of one-year-old ewes there were as follows: 66 lbs., live weight, fleece 15 lbs.; 70½ lbs., fleece 14½ lbs., and 58½ lbs., fleece 13½ lbs."

"The length of staple of these sheep is worth noting, as showing the result of the breeding of Merinos for long staple wool for the past few years. The 193 pounds Butler County ram's fleece measured four inches on the shoulder, 3½ on the hips, and 4½ on the belly; the longest fleece was that of a ewe sheared at

Wichita, whose wool measured 4½ on the shoulders, 4½ on the hips, and two inches on the belly. As a rule, all the fleeces were clean, and the length of staple and size of the sheep were quite equal to any exhibition that has been reported outside of Kansas."

Profitable Culture of Potatoes.

A Seneca County, N. Y., farmer writes to the *Country Gentleman*, describing his method of raising potatoes, which are with him a very profitable crop:

"I use barnyard and stable manure plowed down. I plow carefully, of course, and before marking, I prepare a seed bed fit for barley, or even millet, but pulverizing much deeper than for those crops. I mark as deeply as possible with a common corn marker, in rows three feet apart each way. I cut the seed to two eyes, and drop one piece in a hill. I cover lightly, and when the shoots first make their appearance I cover to the depth of about three inches. For this purpose I use a two-horse corn cultivator, which people here call a 'western cultivator.' The sprouts will make their appearance again in three or four days, when I cover again with the same implement. Two or three days will suffice to bring them again to the surface, after which I cultivate often and carefully both ways until the blossoms begin to appear, when we hill them up with a horse-hoe or shovel-plow, making as high and broad a hill as we conveniently can."

"I plant so as to work both ways, because the land is so foul that if planted in drills, we should be compelled to do a great deal of hard work in order to keep them clean. If this were a special crop, I should certainly plant in drills; but I aim to raise only as many potatoes as I can handle with the other farming, without hiring much extra help. I am very well satisfied with an average yield of 150 bushels per acre of marketable tubers. Beside the profit to be made from this crop, there is an item not to be overlooked, which is the splendid condition in which the successful raising of this crop leaves the land for a crop of barley the following season. I always expect from five to ten bushels more barley per acre on potato ground than on the same land after any other crop."

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The Trouble with Spring Crops.

Says a correspondent of the *Country Gentleman*:

"Much of the plowing for spring grain was done while the ground was very wet, and what was not has been drenched by the rain that fell after sowing. The dry weather since has baked the surface of all heavy soil. I have seen a good many pieces of oats and barley that are little larger than when they were three weeks ago. It is generally said that rain is wanted for these fields. It is not rain that is needed, but better cultivation. The smoothing harrow run over these fields a few times is an incalculable advantage. In the hardest places the driver should ride the harrow. But no matter how slightly the surface is scratched, it makes a little loose earth, which acts as a mulch and softens the soil beneath. The plants on heavy soil that has been dried and baked in the sun, are root-bound. It is impossible for them to spread, and unless there is more than usual rain as the grain is filling, it will probably be of light weight. From what I learn by western correspondence, this wet seedling, followed by dry weather afterward, has prevailed over a wide extent of country, and must materially decrease the yield of oats and barley, and also of spring wheat, where these grains are grown on heavy soil."

Shameful!

The *American Cultivator* says that a shocking condition of affairs has been reported from Blisville, Queens Co., N. Y. In one place between 400 and 500 cattle were housed and fed on distillery still; one of them was affected with pleuro-pneumonia. In another place there were five cases of pleuro-pneumonia in the stables, and three outside were dying. They had been milked that morning and the milk sold to customers. In another stable, out of 130 cows nine were diseased. It is suspected that when the diseased cows are no longer able to furnish milk they are slaughtered for the New York and Brooklyn markets. These distillery dairies, owned by rich distillers, are hotbeds of disease and should be abolished. The cattle are fed on the hot still, and soon reach a lamentable condition of health; the milk produced must of necessity be an unhealthy product.

The Value of Corncock Ashes.

An eastern paper having asked Dr. R. C. Kodie as to the value of corncock ashes, the Doctor replies that he can recall the fact of his having, as a boy, living in the woods, burned them to get carbonate of potash, with which his mother raised shortcake light as a puff, and he gives the following data of a recent analysis showing the high manurial qualities of this by-product which is not always utilized to the best advantage. The Doctor says:

"Not finding a satisfactory analysis, I determined to ascertain for myself the strength of these ashes. I burned the cobs just as they would be treated if burned for fuel, and not as usually done for analysis, namely, to burn them white, and thus remove all coal. I obtained the following results: Alkaline salts, of which 45 per cent was carbonate of potash, 54; phosphate of lime, 7.50; carbonate of lime, 2.30; sulphate of lime, 2; carbonate of magnesia, 8; silica, 20; carbon, 6.30; total, 100."

Agricultural Items.

THOROUGH, deep summer-fallowing is the remedy most effectual in killing dockers. Scattered plants may be killed out by dropping a small quantity of sulphuric acid on the crown of the plant.

A CORRESPONDENT of the *Country Gentleman* figures that the cost of feeding a cow for a year is \$46. During the year a good cow will produce about 250 pounds of butter. The market price of the butter determines whether butter-making is profitable or not.

Mr. J. W. GREEN, a farmer of Western New York, who makes potato growing a specialty, says with him the White Star has been the best for profit, and believes the Dakota Red is

likely to take the lead hereafter. Potatoes degenerate by using poor selections of seed.

THE farmer who has a neat, well kept garden, is almost sure to have a neat and well kept farm, a comfortable and well appointed home, tidy outbuildings and stock in good condition; and the housewife who takes pride in the garden generally has a home to take pride in and to be proud of.

The *Rural New Yorker* says: "In our corn experiments of last year, it will be remembered that a part of the field was hilled up and plowed till it was laid by, while the other portion was not hilled up, but was given shallow cultivation. The latter endured the drought much better and yielded more grain than the former."

There is nothing that pigs relish more than a few hills of sweet corn cut and thrown in to them, just as the ears begin to harden. They will eat it, stalk and all, just as greedily as they would a warm mash in winter, and there is nothing more conducive to thrift and growth in young pigs than a partial diet of this kind. As a soiling crop it is most valuable, and whatever is left at the end of the season should be cut and cured for winter use.—In which capacity it is much superior to the huge stalky growth of the ordinary field corn.

A CORRESPONDENT of the Massachusetts *Ploughman* says the only way a farmer can afford to use chemical fertilizers is to compound them himself; then he knows exactly what he is using; and gives the following formula for a fertilizer which excels any commercial article: Take one barrel fine bone meal; one barrel fine wood ashes; one barrel fine manure; 25 pounds of potash; 30 pounds of gypsum; dissolve the bone meal and potash with sufficient water in a tight bin, and when fine and the dry ashes, lime manure and gypsum; mix thoroughly and quickly, and cover the heap immediately with six inches of fine loam; let this remain intact for two weeks, then turn the entire mass well. Should there be any perceptible escape of ammonia from the heap apply more gypsum, let this heat a few days, then apply to the soil on the surface and at once thoroughly harrow it in.

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STATE OF MICHIGAN.—The Superior Court of Detroit.

At a session of the Superior Court of Detroit held at the Court Room in the City of Detroit on the 10th day of June, 1884.

J. Logan Chipman, Judge of said Court. Emma Rosebach, Complainant, vs. Jacob Rosebach, defendant.

It is satisfactorily appearing by affidavit of Emma Rosebach, the Complainant in the above entitled cause, that the above named defendant is a resident of this State, and on motion of William Look, Solicitor and of Counsel for said Complainant, it is ordered that the said defendant do appear and answer the bill of complaint filed in this cause within four months from date of this order.

J. LOGAN CHIPMAN, Judge of said Court.

WILLIAM LOOK, Complainant's Solicitor and of Counsel.

BLAINE Agent wanted for sale of his edition of his history of Maine, published by him, out of the twenty others by E. O. Blaine

Horticultural.

PEACH YELLOWS IN MICHIGAN.

In the report of the State Fruit Committee in the proceedings of the American Pomological Society, Secretary C. W. Garfield, of the State Horticultural Society, who made the report from Michigan, says of the peach yellows:

"Peach yellows steadily increases its encroachments. The peach growers of our State are thoroughly disgusted with the methods pursued by the men who write the most about this disease in the newspapers. We earnestly desire investigations to be inaugurated and carried on vigorously, but we note this fact, that those men which have investigated the Michigan form of this disease *in situ* say the least about causes and remedies. Perhaps we may have a more 'putrid' form of the malady than other peach growing sections, but after the careful attention given to the disease by men of brains who also have everything at stake financially in peach growing, it causes a grim smile to play upon the features of our peach growers to read the suggestions of the men who write scientific opinions about the yellows. Our Michigan men have settled down to the method of exterminating every vestige of the disease wherever it shows itself, and thus 'stave off' the day which seems inevitable in every locality where peach culture is made a specialty, when the disease shall have rendered the industry unprofitable."

"Michigan peach growers will welcome any thorough scientific experimenter who will come and carefully investigate the disease as manifested here; but uniformly they agree with Dr. Halsted that the study must be made in the locality where the disease exhibits all its forms, as we have it here; and we shall continue to laugh at men who publish deductions from investigation made with specimens preserved in alcohol, or conveyed by other means away from the scene of destruction. Pasteur's method of investigating diseases in animals and man commends itself to us as the wise method in this case."

"Who will come and give the time and attention necessary to the solution of this problem?"

"We do not claim to be an aristocracy in this matter of yellows, and announce that we have a higher type of the disease than any body else, but we do not hesitate the observation that the deductions made by those who have recently investigated published results are not warranted by our state of facts."

"Dr. Kedzie has shown that in our State we have a wonderful variety of soils as far as the elements of plant food are concerned. Peaches are grown upon a great variety of these soils and in no instances has there been the least indication that there was any immunity from the disease as a result of situation. Many other facts could be stated from our experience that are in perfect discord with the recent bulletins upon this vexed question."

PEAS.

Report on Varieties by the Ohio Agricultural Experiment Station.

The following varieties of peas were sown April 11, in a moderately rich clay loam.

The conditions were, as nearly as possible, alike for all.

The most conclusive evidence shown by the test is that the Extra Earlys, First and Best, etc., of different seedsmen are nearly identical. Differences, of course, can be noted, but they are mainly such differences as are unimportant. Some, however, notably from D. M. Ferry & Co. and Peter Henderson & Co., show evidence of careful selection; that is, there is greater uniformity in time of ripening and quality of product than of any of the others.

American Wonder.—This was planted for comparison as it is already well known. It is a sweet wrinkled pea growing eight inches high. It is the best of the wrinkled varieties, although in this trial many of the pods did not fill perfectly. The crop was ripened in a comparatively short time, being nearly all taken at two pickings. Average number of peas to the pod 6. Ready for use June 20.

Blue Peter.—This is also a well known variety. In comparison with others it did very poorly. Most of the pods contained only two or three peas. The vines also mildewed considerably. It commenced ripening with the American Wonder, but continued longer in bearing, making it unprofitable for market.

D. M. Ferry & Co.'s First Best.—This is a smooth variety, growing about two feet high. The vines are healthy and vigorous, and loaded with well filled pods. The peas mature evenly and within a very short time; yielding nearly all the crop at two pickings. Nearly all the pods were well filled, containing six to eight peas. This is certainly one of the very best early market peas. For table use the quality is not equal to the sweet varieties, but is as good as any of the smooth.

A few pods were fit to pick June 15. The first picking was made June 18.

Henderson's First of All.—This resembles the preceding, and is full equal to it in every respect, and perhaps superior in evenness of maturity. Height of vine about two feet; number of peas to the pod six to eight; fit to pick June 18; a few pods quite well filled June 15.

Little Gem.—A well known wrinkled variety, of larger growth and a few days later than American Wonder.

The pods did not fill well; many of them containing only three peas, although large enough to contain twice the number. Ready to pick June 20.

Market Garden (Horsford).—This is a new wrinkled variety that promises well as an intermediate or second early pea. The vines are healthy and vigorous growing to the height of two and one half feet. The pods are borne in pairs and are usually well filled, containing five to six peas. First peas ready to pick June 25. At this date the vines were still in bloom,

showing that they will continue long in bearing; making it more valuable for home use than for market.

Rocket.—A cross between Alpha and American Wonder. The vines are healthy and vigorous, growing four to five feet high. Ripens about the same time as Market Garden. Pods contain five to six peas.

This is apparently not so desirable as the Market Garden.

Sidley's First and Best.—This is about as early as any, but matures quite unevenly, and the pods do not fill very well. Height of vines about two feet. First peas ready to pick June 20. Pods contain four to six peas; many of the pods not well filled.

Tom Thumb.—Too well known to need any description. This variety did not sustain its reputation. The vines mildewed, and the pods were poorly filled. First peas ready for use June 18.

Vick's Extra Early.—A smooth variety, growing about two feet high. Vigorous and healthy, but many of the pods not well filled; ripened unevenly. Pods contain three to six peas. Ready for use June 20.

The Oyster Shell Bark Louse.

The following description of an insect which effects many orchards in our State, is given by a Maine orchardist in the *New England Farmer*:

"This insect appears in the form of minute scales about one-sixth of an inch long, of a brownish or grayish color, appearing very much like the bark of the tree, resembling the shell of the oyster in shape, and closely adhering to the surface of the bark. In some instances the bark is completely covered with these scales. Under each scale will be found from fifteen to one hundred or more eggs which usually hatch late in May or early in June. After hatching, if the weather is warm, they appear upon the surface of the bark, running about in all directions looking for suitable locations to which to attach themselves. They are very small, being only one hundredth of an inch in length, appearing to the unaided eye as mere specks. It is only for a few days that these insects are seen moving about, and this is the most favorable time of the whole year for destroying them. When encased under the almost impenetrable shells, it is very difficult to reach them with any application which will prove completely effective. This period during which they are unprotected, should be sought for by the orchardist, and destructive washes be applied. In a few days the insects select an abiding place, placing their strong prolegs into the bark so that they can draw their nourishment from the sap, and settle down for life. In a few days they are covered with a white, waxy secretion which issues from the body, and gradually a shell forms and extends all over them, covering them and protecting them from injury. Under this shell the insect lays the eggs which remain until the following spring, when they in turn hatch. It is evident that an insect which multiplies thus rapidly, will soon be present in immense numbers if unmolested."

"Various washes for destroying the scale insects has been recommended. The most favorable time for applying is at or near the hatching season, during the last of May or first of June. Prof. Wm. Saunders, in his work on 'Insects Injurious to Fruits,' recommends that trunk and branches be brushed over with soft soap, reduced to the consistency of thick paint, by the addition of a strong solution of washing soda in water. If applied during the morning of a warm day, the wash will dry and form a tenacious coating not easily dissolved by rain, protecting the bark from all kinds of insects. Or, the tree may be syringed with a solution of washing soda in water, made by dissolving half a pound or more in a pailful."

Prof. Comstock, in his experiments in destroying scale insects while Entomologist to the U. S. Department of Agriculture, found soapuds the most satisfactory of anything that he used. He says: "The results were so remarkable that I feel warranted in saying, that taking into consideration its efficiency as a means of destroying scale insects, its effects upon plants, and its cost, there is at this time (1880), no better remedy known than a strong solution of soap. In my experiments, whole oil soap was used, and the solution was applied by means of a fountain pump to orange trees infested with the red scale of California. In the strongest solution used, the proportions were three fourths pounds of soap to one gallon of water. The mixture was heated in order to dissolve the soap thoroughly; and the solution was applied while yet heated to about 100 deg. F. The tree upon which the experiment was made, was very badly infested, the bark of the trunk being literally covered with scales. Four days after the application of the solution I examined the tree very carefully, and could find no living insect on the trunk of the tree, and only a small proportion of the coccids on the leaves appeared to be still alive."

"Kerosene oil emulsion has been used quite extensively for the destruction of scale insects, with excellent results. The kerosene not only kills the insects, but also destroys the eggs. It is also a much cheaper application than the whole oil soap. The kerosene oil is mixed with milk in the proportion of two parts of oil in one of hot milk, and violently churned until an emulsion is formed, which may then be diluted with water. When used, one pint of the emulsion may be added to two gallons of water. This dilution resembles milk, and should be used at once with a force pump or syringe. This wash, says H. S. Hubbard, special agent of the Department of Agriculture, will kill all the coccids and other eggs under scales with which it can be brought into direct contact. He adds: "No preparation known to me, will, however, remove the scales themselves from the tree, or in any way reveal to the unassisted eye, the condition of the insects within. This can be ascertained only by microscopic examinations of detached scales. Time alone, and the condition of the tree itself will indicate the result of an application."

The Effect of Frost on Apple Blossoms.

It is very rarely that apple blossoms are killed by frost, because it is not often that a frost comes after the trees are in full bloom that is severe enough to reach the trees, except on very low land.

An apple blossom before it is fully opened is very hardy and will withstand quite a cold night without the slightest injury, but the moment the flower is fully expanded it is very tender and quite susceptible to the cold. When the pollen has begun to form, the slightest frost will kill the blossom, or the vital portion of it. At this stage it requires a much less degree of cold to destroy it than after the fruit is fully formed; when the fruit is formed, and the blossom is dropped off it must be cold enough to freeze it to destroy it, while when the flower is forming the pollen is so very delicate that the slightest frost will prevent the fruit from forming.

The very cold weather we had the 30th and 31st of May, destroyed large quantities of fruit, because the apple trees were in many places in full bloom, therefore in just the right condition to be the most susceptible to the cold. In those sections where the trees were late and had not expanded their blossoms the injury no doubt will be slight.

Taking the State through, it is believed that the loss of apples will be quite serious, but on the seashore a very considerable portion of the trees have escaped injury, though even here we have no doubt the injury will be much more than at present appears to careless observers. A blossom that is fully expanded may be injured and yet few would notice it, because it may be so slightly touched with frost as not to kill the leaves of the flower, but chill the vital portion of it, which will be discovered only by the closest examination; this will show when any injury is done, by a change of color of the stamens, being first of a brownish and then quite dark color. When this takes place the embryo fruit drops, and the blossom and sometimes not suspecting the cause, but believing that the fruit did not set because of some condition beyond his power to understand when in point of fact it required only early rising and close examination to have made the cause perfectly clear to every person of ordinary intelligence.—*Mass. Ploughman.*

Training Tomato Plants.

Most growers agree that keeping tomatoes of the ground is a great advantage. Stakes or trellises are now used to a great extent to train them to. A common way is to train single stakes of about four feet in height, tying the plants to the stakes as it grows. This is little or no improvement over the old way of letting them lie on the ground. A much better plan is to set the plants in rows of four feet apart, and the plants three feet in the row. Before setting the plants dig out a couple of pits of earth, and set in three branches of three-twenty ones are best in triangular form, with the tops spreading outwards. Set the plant in the center of this, and as it grows keep the shoots inside of the stakes by passing a string around them. There is no better way to get good, clean fruit from tomatoes. As everything generally has some disadvantage connected with it, so this way of growing tomatoes is not perfect. When the plants are allowed to run over the ground they keep the soil cool and moist. It follows that tying up to stakes produces the opposite effect, and the plants suffer the sooner from summer droughts. This can be easily remedied by mulching around the plants with something to break the sun's rays. If nothing else is at hand, cornstalks answer admirably. Tomatoes produce such a mass of foliage that they require much moisture, and it is surprising how they thrive when by mulching or other means the ground is never allowed to become too dry.—*Germaniston Independent.*

Spraying Orchards.

H. Shepley of Nevada, Missouri, reported to the Missouri State Horticultural Society an account of his experiments in spraying orchards with London purple, to destroy the canker worm, and he stated the expense of the operation. The mode of spraying for the codling worm is quite similar, although performed usually at a different time in the season. Mr. Shepley did his work on a large scale, at an expense of only three cents a tree, in the following manner: He placed three empty coal oil barrels in a wagon and filled them with water; he then took a pound of London purple for each barrel, first mixing it well in a pail of water, and pouring it into the barrel. The wagon was driven along the windward side of the row of trees if there was much wind, and with a fountain pump with a fine rose, the liquid was thrown over the trees. The water in the barrels must be constantly stirred during the operation, to prevent the poison from settling. Great care should be taken not to breathe any of it, nor to allow the wind to carry the liquid toward men or horses. With two teams and four men three or four hundred trees could be sprayed in a day. The entire cost, including pumps, barrels, poison and labor, was about three cents a tree for twice spraying.

We have never known an instance, out of many trials, where this treatment was not entirely successful with the canker worm, or where it did not destroy most of the codling worms, and give much fair fruit which before was nearly ruined with this insect. In rainy weather it should be repeated two or three times, the first application being washed off. We have preferred Paris green to London purple, as being more uniform in its degree of strength when not adulterated.

For the canker worm the work should be done early in spring; for the codling worm when the apples are half an inch in diameter, and repeated a few days afterwards. After spraying, sheep or other animals should not be turned into the orchard to eat the scattered herbage till a heavy rain has washed off the poison.

It may be interesting to remark that the young codling insect, when hatched from the egg laid in the blossom end of the fruit, weigh less than a two hundred thousandth part of a man, and it is there fore killed by a quantity so small as to

have no effect whatever on human beings. Even this minute portion is all washed off by rains before the fruit is grown.

Apple Tree Aphids.

The apple tree aphid has proved in some places a formidable enemy to this fruit by the injury it occasions to the foliage. The insect cannot be destroyed with Paris green and London purple (so efficient for the canker-worm and codling-moth), because it does not eat the substance of the leaf, but merely inserts its tubes into the interior, and sucks the juice from where these poisons do not reach. The eggs of this aphid are laid in the crevices of the bark and about the base of the buds, and on the approach of warm weather in spring, and as soon as the buds begin to open, the eggs are hatched into minute insects. They are then easily destroyed by washing or syringing with strong soap-suds to which soda has been added; or with tobacco water. Earlier, and where accessible and on a small scale, the eggs may be destroyed by scraping, but not with these washes. Cold weather will kill the newly hatched insects, and thus spring frosts sometimes does a great amount of good. There are a number of other insects which feed on the lice, among which are the two-spotted and nine-spotted lady-bugs, lace-wing flies, and others. Later in the season the lice are not so easily destroyed, and it is therefore important to take them in time, or just as the buds are opening into leaf. All of this, as with whatever we obtain that is good or valuable, must be obtained with diligent labor.—*Country Gentleman.*

We learn that Mr. J. W. Wellhouse, of Fairmount, Kas., President of the Horticultural Society of the State of Kansas for a number of terms, and widely known throughout the Missouri Valley as one of the most energetic and progressive members of the guild of Horticulturists—has ordered the largest single Evaporator ever erected west of the State of Delaware. It will be a special size, (No. 9) and will be made by the Pioneer Fruit Evaporator Co., of Leavenworth, Kas. Its capacity will be 300 bushels per day. "This is his second order for factory size Pioneer Evaporator. Mr. Wellhouse has spent the greater portion of his life in the fruit business, and is impressed with the idea that the evaporation of fruit is the coming process for preserving it, and accordingly he has provided himself with the celebrated Pioneer Evaporators for the purpose of handling all the fruit he can grow. When the home market is weak, he proposes to evaporate and ship to European markets all he can produce. He is the largest fruit grower in the State of Kansas, having 487 acres of orchard—containing 48,000 bearing apple trees.

Mr. C. W. Garfield, Secretary of the State Horticultural Society, in his report on fruit growing in Michigan to the American Pomological Society says: "Upon the Huron shore, in the region of 'Michigan's thumb,' quite a good deal of progress has been made in the culture of fruits. Even some of the more delicate fruits are found to succeed admirably. But statistics indicate that with the clearing up of this new country the rainfall may not be sufficient in the aggregate to give the most satisfactory results." We think, after the experience of the past two years in this State, on the "Thumb" as well as other sections, that any fears of an insufficient rainfall are rather chimerical. Perhaps there were seasons while the forests covered the greater portion of the State when a greater amount of rain fell than in the two last, but we have as yet found no record of them.

INCREASE IN FRUIT.—The drying or evaporating process has given a new impetus to fruit culture, and more especially to the cultivation of raspberries. Take an instance in a single limited locality: The Wayne county fruit report to the horticultural meeting at Rochester, states that in the single township of Williamson in that county, the raspberry known as the Ohio is chiefly planted for this purpose, on account of its great productiveness and fitness, and that one planter has 20 acres in bearing, another twenty-five, and another 15; while in the adjacent township of Marion there is a single plantation of this raspberry of more than fifty acres, and many smaller ones of from one to twelve acres.—*Country Gentleman.*

The Ohio Agricultural Experimental Station recommends pyrethrum, or Persian insect powder, as the most effective remedy for the cabbage worm of anything yet tried there—and they have tried about everything.

Horticultural Notes.

Mr. C. W. Garfield says he is done planting the Gregg raspberry, finding it wanting in the very essential point of hardness.

By timely rubbing of needless shoots from young fruit trees and grapevines the necessity for heavy pruning may be entirely obviated, and there will be none of the loss of wood which has already grown, and no check be given by large amputations.

Prof. Maynard, of the Massachusetts Agricultural College, believes that much of the failure of the peach in New England comes from want of care in keeping out the peach borer, which works in the collar near the ground. No doubt much that is attributed to the yellows should be credited to the peach worm.

Hybrid perpetual roses are classed among the ever-blooming ones, but whether they bloom freely in autumn or not depends much on treatment. The flowers at this time should be cut off at once as they fade. It is from the new buds, which push from under the old flowers, that come the autumn blooms. All roses bloom the better in their succession for having the flowers cut as they fade.

A CORRESPONDENT of the New York Tribune, speaking of the support for raspberries and blackberries, says: "I saw a plantation of blackberries the other day in which the canes were tied to trellises of galvanized wire, two wires to a trellis, the upper one about four feet from the ground. It presented an exceedingly neat appearance. Such a system allows of frequent and thorough cultivation and easy gathering of the fruit."

A. C. WILLIAMS, in the Indiana Farmer says:

"The Ben Davis apple is without a superior as a market fruit, but the quality is only second rate. When you want to eat an apple, with all the aromatic flavor of a Spitzenberg, take a Jonathan, or a Rome Beauty, either of which, in every respect, tree, productiveness and beauty, are the equal of the Ben Davis. Raise carloads of Ben Davis if you desire, but sell them to some other fellow and let him eat them if he can."

A CANADIAN fruit grower writes the *Horticulturalist* that he saves his young fruit trees from the attacks of mice in winter by adjusting strips of cedar bark about 18 inches long round the tree, letting one end rest on the ground, and tying the upper ends close to the tree. In autumn he loads the cedar bark into the wheelbarrow and goes the rounds of the orchard; in spring he cuts the strings, gathers up the bark and the work is done.

Prof. Fournes tells us that it is the damage done by the corn-root worm, not the impoverishment of the soil, that makes Illinois cornfields less productive than old fields. The remedy is rotation; the worm eats the roots of the corn plant only, and to change the location of the cornfield every year is a sure cure.

If you are intending to save your own garden seeds, take more pains to select some of the best plants for this purpose. Do not wait until the best are gone and then save the leftovers for seed. This is very poor economy at best. Take a run of peas and beans and do not allow them to be touched, and then from these select the best. Select the earliest and most vigorous lettuce plants, the largest and earliest radishes, beets and spring turnips. Set a stake by them so that you will know them, and save only the earliest matured seed from these.

Prof. Carpenter, of the Agricultural College, says that in this country there is a growing prejudice against the use of tile smaller than three-inch, and the majority of the makers are not making smaller sizes. In his opinion, this prejudice against smaller tile is unreasonable, and due principally to the fact that drains of small tile, if carelessly laid, are more likely to fail than larger ones. Thus, for example, a variation of two inches from the grade line would, in time, be fatal to a two-inch drain, whereas it would only partially choke up a three-inch drain.

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A. C. WILLIAMS, in the Indiana Farmer says:

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NEW ADVERTISEMENTS.

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Poetry.

A CHILD'S NIGHT THOUGHTS.

They put her to bed in the darkness,
And bade her be quiet and good;
But she sobbed in the silence, and trembled,
Though she tried to be brave as she could.

For the night was so real, so awful!
A mystery closing around,
Like the walls of a deep, deep dungeon,
That hid her from sight and sound.

So chilling, so empty, so dreary,
That horror of loneliness blank!
She fell asleep, moaning and fearing,
That morning would never come back.

A baby must bear its own sorrow,
Since none understands it aright;
But at last from her bosom was lifted
That terrible fear of the night.

One evening, the hands that undressed her,
Led her out of the room close by;
And bade her look up for a moment,
Up into the wonderful sky.

Where the planets and constellations,
Deep rooted in darkness, grew
Like blossoms from black earth blooming,
All sparkling with silvery dew.

It seemed to bend down to meet her—
That luminous purple dome;
She was caught up into a glory,
Where her baby-heart was at home—

Like a child in its father's garden,
As glad as a child could be,
In the feeling of perfect protection
And limitless liberty.

And this had been all around her,
While she shuddered alone in bed!
The beautiful grand revelation,
With ecstasy sweet, she read.

And she sank into sound child-sleep,
All folded in splendour high,
All happy and soothed with blessings
Breathed out of the heart of the sky.

And in dreams, her light, swift footsteps
Those infinite spaces trod—
A fearless little explorer
Of the paths that lead up to God.

The darkness was now no dungeon,
But a key unto wide release;
And the night was a vision of freedom—
A Presence of Heavenly peace.

And I doubt not that in like manner
Might vanish, as with a breath,
The gloom and the lonely terror
Of the Mystery we call Death.

—Lucy Larcom, in St. Nicholas.

SONG OF THE BEE.

On wings that brush the morning dew
I search the meadows over,
And in my wayward flight I drink
The breath and life of clover.

The wise I sip is dew-distilled
For summer's busy rover,
Is nectar sweet that dwells within
The waving folds of clover.

Through all the golden days of June
A thousand knights were scattered,
And as they charged down the fields,
A million shields were shattered.

A million shields of clover bloom,
In meadows bright and sunny,
Were yielded to their native heat,
To shed a jar of honey.

And through the windy days my board
Weaves strange and mystic fancies,
Before men's eyes in gladness guise,
The light of summer dances;

Beneath a cloudless sky they see
The clover fields and tangy,
The sighing words and velvet moss
The violet and pansy.

Miscellaneous.

THE TURN OF AN ACCIDENT.

It was six o'clock of a crisp October morning, and John Boyd, a farmer, returning from his sound night's sleep, sprang out of bed with an alert readiness of a man who knows the value of the first hours of day. It was a tavern bed from which he jumped; home and its cares were many miles away; but a long ride lay before him, and he washed and dressed briskly, as one in haste, humming a cheerful air, mean while, as became a man who felt himself in good spirits, and had ample reasons for being so. For, he it known, this year had been the best for farmers, since John had been his own master. Harvests had been large, prices high, and John, on his way back from the annual market, carried a sense of freedom and liberation at his heart from the final extinguishment of a mortgage on his farm—a mortgage which had pressed as heavily on his conscience, as did the burden of Christian on his shoulders. The burden was lifted now, and further than that, John carried in his fat red wallet, two hundred dollars over and above, toward the expenses of the next year. He had never been so "beforehand" before, and the sensation was a joyful one.

"My neck is out of the collar, now," he muttered to himself, as he brushed his thick, brown hair. "I should be a fool indeed if I put it in again. No mortgages for me!"

Then, his toilet completed, he ran down stairs, two steps at a time.

Farmer-like, his first visit was to his horses. They were munching their corn very satisfactorily, and after a look or two, and a pat, John returned to the inn, where a jangling bell announced a breakfast. He was smoking on the table—a substantial meal of the kind universal in taverns thirty years ago; and John Boyd, whose appetite was of the kind proverbially said to accompany a good conscience, was doing it ample justice, when a sudden instinct led him to thrust his hand into the inner pocket which held the two hundred dollars. The wallet was gone!

In the suddenness of the shock, John felt himself turn pale, and then flush painfully, as he confusedly tried to remember if he had taken out the wallet, and when. Under his pillow—there it was! He recollected distinctly, or so it seemed, putting it there, for security's sake, when he went to bed the night before. With a muttered excuse, he left the table, and hurried up stairs. The door of his room stood open, and the maid-servant was putting fresh sheets on his bed, and the soiled linen was lying in a heap on the floor.

Toward the heap John hurried, and began turning it over.

"Have you lost something, sir?" asked the maid.

John straightened himself to answer. He had not noticed the maid before, though she had waited upon the table at

supper. Now he observed she was young and rather pretty—fair, with a trim, slender figure, beautiful glossy hair, neatly dressed and braided, and a pair of sweet, apprehensive blue eyes. Her voice was soft, too; and she had a shy, modest manner, which suggested an idea of refinement. All these things Farmer Boyd observed in a flash, and instinctively noting, weighing, estimating, by that wonderfully rapid process of which the human mind is capable, while yet his thoughts were full of his money and his loss.

"Yes; I am looking for my wallet, which I left under my pillow. Did you find it?"

The girl's face blanched to a deadly whiteness, and her eyes dilated as with sudden terror.

"No sir," she said, her voice trembling and sinking away as she spoke. "I didn't see any wallet."

John looked at her distrustfully; but there was something in the pale face which disarmed suspicion.

"I'd like to search the bed," he said. "It may have slipped under the mattress."

Together they turned the mattress, but no wallet was visible.

"That off horse of yours has got his shoe loose somehow," announced Mr. Nash, the landlord, suddenly appearing at the door. "I thought I'd better tell you, so that you can stop at the blacksmith's as you pass, and get him to put in a couple of nails. Why, what's the matter?"

John explained.

The landlord looked very grave. He whistled softly to himself for a minute, with his eyes fixed on the tumbled bed-ding; then he went to the head of the stairs, and called his wife. Presently they came in together, and the landlady's face looked very red and troubled.

"Such a thing never happened in my house before," she protested. "But there's only one person that has been in your room since you came, beside yourself, and she's the person you must reckon with," pointing to the maid, who, with white cheeks and downcast eyes, leaned against the wall as if awaiting sentence.

"Oh, indeed, indeed, I didn't take it! I never saw any wallet," she said; but her voice was drowned in Mrs. Nash's louder tones.

"And pray who else took it, do you suppose? Who else had the chance? Answer me that! It serves me just right for taking in a girl with no recommendation—a girl I didn't know nothing about, not so much as her name, or where she came from, or where her folks are. Five weeks ago to-morrow, that's all the time she's been in the house, sir; but this is the end of it. It's the last time I'll ever have a help I don't know the long and short of, so you needn't be afraid to stop with us again—no, nor none of your friends, either; as for her, out she packs this very day!"

"I'd better go for the constable, hadn't I? If you're sure it was under the pillow you put it," said the landlord.

"Oh, don't, please don't!" pleaded the girl, weeping bitterly.

"Give the gentleman his wallet back, then; perhaps he let you off."

"I can't. I haven't got it! Oh, please believe me! Don't send me to jail!" she urged.

The landlady only answered by an expression of disgust. And, throwing her apron over her head, the poor girl wept in silence, saying no more.

John had held his peace during this altercation, sharply eyeing the persons concerned it, meanwhile. The Nashes he knew something about. They were of good reputation as far as he was aware. The maid was a stranger to them, as to him; but, in spite of the circumstances, and her manner, which was hardly less suspicious, he could not bring himself to believe her guilty. He was not a hasty man, and he was a just one, with a kind heart to back his temperate judgments; and after a few minutes' reflection he made up his mind what to do.

"I can't swear that I put the wallet under the pillow, or anywhere else," he said. "I'm pretty sure that I did, but my thoughts about it are confused, somehow, and it may be that I left it at Bolton, where I slept Tuesday night. I don't want no injustice done on my account. Don't cry like that—addressing himself to the girl—"I'll tell you what I'll do. Will you get the bay mare shod during the day?" to Mr. Nash—"and if you'll lend me a saddle I'll ride back to Bolton and make inquiry there. If I find the money, well and good; if I don't it will be time enough to talk further about it to-morrow."

"I'm sure it's good of you to take so much trouble," declared the landlady. "But whether or no, the girl don't stay here. I'll have no suspected thief in my house!"

"There'll be nothing to suspect her of, if I find the wallet," rejoined John, dryly. "Don't give the poor thing a bad name till you know that she deserves it." Then he left the room, unmindful of the look of gratitude which shone upon him from the blue eyes of the girl, who had dropped her apron, and gazed after him till he was out of sight.

His reflections were not agreeable, as he retraced his footsteps over the dusty highway, travelled but yesterday with so light a heart. The loss of his money meant a good deal to John Boyd. The pressure of anxiety seemed to settle again upon his shoulders, as he thought over the probabilities of its non-recovery. "But I won't give in without a fight for it," he thought, grimly, as he urged his horse forward.

Miles seem doubly long when measured by a heavy heart, and what with dust, heat, and the continual effort to clear his mental confusion as to when and where he had last seen his wallet, the young farmer was fagged and dispirited enough, before noon was fairly come.

He stopped to dine at a little tavern attached to a toll-gate, and, with some vague hope that the money might have been picked up on the road by some one, mentioned his loss. The toll-keeper shook his head.

"Bolton's your only chance," he said. "If it was of the road you dropped it, there's no likelihood that you'll ever hear of it again. The dust is eight inches deep, I should say, and there's been three big droves of sheep and one of bullocks along

since yesterday, so if your wallet was lying there, they must have trampled it under pretty thoroughly. It is buried deep enough, you may be sure, unless, which is just as likely to happen, some one has picked it up and made off with it. Your chance is a slim one, I reckon."

Cold comfort this; but John was forced to agree with his opinion. Despondently he rode through the afternoon, scanning the way as he went, for, despite the toll-keeper, a faint hope still lingered in his heart, though the track, deep in dust, and churned and trampled by the crowded droves, presented a sorry field for either hope or discovery.

He had gained the top of a long hill, from which Bolton was dimly visible, when a moving object far ahead caught his eye, and he rose in his stirrups in order to see more clearly. As he did so, his horse made a false step, stumbled, and threw him forward in the saddle so that his head grazed the horse's neck. It was in this position that a tiny object, a patch of red, not over an inch square, in the dust beneath, caught his eye. His heart gave a little leap, then he called himself a fool, but all the same he dismounted to examine. Already a random hoof-stroke had buried the red patch from sight, but John recollected the spot, and stooping, dug and scooped till it again became visible. His fingers recognized a solid substance. Trembling with excitement, he continued to dig; another second, and the object was uncovered, lifted out, and with a wild, incredulous whoop of joy, John Boyd held in his hand his wallet, buried deep by the hurrying herds, and uncovered for one passing moment that his eye might rest upon it, and no other.

Except for that lucky stumble, he would have ridden over the lost treasure, and never dreamed what lay beneath his horse's feet.

"And some folks say there ain't no God!" was his mental comment, spoken half-aloud. Then—"or John Boyd's religion, though a homely, was a true one—he bent his head, and said a few words of thanksgiving; after which, jumping on his horse, he took the backward route, eager to tell his good fortune, and exonerate the poor girl, who, as he now remembered with self-reproach, must have passed a painful day under the stigma of undeserved suspicion.

The heat was yielding to evening freshness, and he urged his horse, impatient to set matters straight; but, with his best endeavor, it was after 11 o'clock before he at last drew rein in front of Nash's hotel. He was expected, that was evident, for lights were burning, and both Nash and his wife hurried out to meet him, wearing faces of lugubrious length, which only in part changed to cheerfulness when they heard of the recovery of the wallet.

"There, what did I tell you?" cried the husband. "Haven't I been a saying and a saying all day that likely as not this scare wouldn't turn out all for nothing? And you would listen to a word, but just kept on to that poor thing inside there, and she nothing to blame all the time. I declare, it's too bad the way women act to each other—and folks calling them 'softer sex'! A man would be ashamed to be so hard. Well, do tell! And so the money was a-lying there in the dust all the time! Well, I'm mighty glad, for your sake and ours too. Go right in, sir, and wife'll give you some supper. I'll see to the horse."

Mrs. Nash waited on the meal in grim silence. She seemed only half-rejoiced at the denouement.

"It's mighty queer," she remarked, as she sat the last dish on the table. "I don't feel as if we had got the bottom of it yet. Why didn't Lucy deny more positively?"

"But she did," said John, between two mouthfuls. "She said she hadn't got it!"

"Why, of course, she said as much as that. You didn't expect her to say that she'd got it, did you?" rejoined the landlady, with a fine scorn. "But she didn't speak up violent and bold, as you'd expect an innocent girl would."

"But she was innocent all the time, you know."

"I ain't no overture about that," replied Mrs. Nash, with a shake of her head. "It's a queer business."

"Now look here," shouted John, roused by this persistent injustice; "what is there queer about it, I should like to know? Here's my wallet,—slapping his pocket—"and I told you where I found it. And you know as well as I do that I never put it under the pillow, and that girl of yours had no more to do with it than a babe unborn. It's her pardon that I ought to beg and you too. So I hope ma'am, you'll drop the subject, and just make it up to the poor thing by being extra kind, as it were, for the bad day we've made her spend."

Mrs. Nash seemed by no means mollified by this not over judicious appeal, and as soon as her duties as hostess would permit, left the room muttering under her breath something that John did not catch. He was too sleepy to care particularly about the matter, and presently went to bed, when dreamless slumber drew her veil over the day's vicissitudes.

Hurrying out to the barn next morning in the best of spirits, a low sobbing sigh called his attention to a bench outside the kitchen door, where sat a figure crumpled up into a forlorn little heap, in which he recognized the pretty maid of the day before. She wore her bonnet, and a bundle lay beside her. Her face was hidden on her arms which were crossed on the back of the bench.

"Why, what's the matter?" said John, turning back.

The girl looked up with a start. "I beg your pardon," she faltered, "I'm just going. I didn't mean to stay so long."

"Go in! Where?"

"I don't know where," she said dejectedly. "I'd try for another place, but there doesn't seem much chance of getting one without a recommend."

"Do you mean to say that they are sending you away from here?"

"Yes."

"But in the name of goodness, why?"

"I don't know. Mrs. Nash says she don't like to have servants about who are suspected of stealing." The blue eyes filled again as she spoke, and she hid her face.

"By George! I never heard of such injustice in my life," shouted John. "Now, Lucy, if that's your name, you just sit still where you are. Don't you stir or move till I come back. I'll see Mrs. Nash. I'll put things right."

To put things right seems easy enough to a strong, hearty man, with justice and argument on his side, but that is because he does not calculate properly on those queer hitches and crochets of human nature, especially woman nature, which have no relation to justice and fair dealing, and are unaffected by argument. Mrs. Nash proved impervious to John's choicest appeals. Her mind was made up; she "didn't want to hear no more on the subject;" finally, her temper rising, "what business was it of hers," she demanded, "what help she kept, or if she kept any at all? He'd got his pocket-book back; accounts were squared between them; there was no further call, so far as she could see, why he should meddle with her concerns." The upshot of the interview was that John flew out of the kitchen with his face as red as fire, tickled his horse, threw valise and feed-bags into the wagon, flung the amount of his reckoning on the table, and addressed Lucy, who, pale and terrified, stood, bundle in hand, prepared for flight, calling out:

"Now, then, my good girl, you've lost one place by my fault, and I'm darned if I don't offer you another. Will you jump into my wagon and go home with me? My old woman's been talking this long piece back of getting a smart girl to help her along when she's laid up with rheumatics; so you're just the one we want. She'll treat you fairly enough, I'll be bound, and you shall have whatever you were getting here. And if you behave yourself, you'll be well used, not turned out of doors for nothing; I'll engage to that; it isn't the way up in our parts, with a vindictive look at the landlady, who stood rigidly planted in the doorway.

"We don't set up to be extra Christians, but there's a little honesty and decency left among us, which is more than said for all places. Well, what do you say? Yes or no. There's my hand on it, if it's yes."

He held out his broad palm. Lucy hesitated, but for a moment only.

"Yes, I will," she said. "I've nowhere else to go, and you seem kind."

Another moment, and they were driving off together down the maple-shaded road, whose yellow and crimson boughs danced overhead against "October's bright blue weather." There were peace and calm in the fresh stillness of the early day. Gradually a little color stole into Lucy's pale cheeks, and John's hot mood gave place to his wonted good humor and cheer.

"You've had no breakfast, I'll bet," he said, with a smile. "And no more have I. I was so mad with that woman that I couldn't swallow a mouthful, but now I begin to feel sharp enough. We'll stop at the next tavern, Southwick, isn't it? Five miles and a half. Can you hold out till then?"

"Oh, yes indeed," with a grateful look out of the blue eyes.

John's tone grew more and more friendly.

"We'll have something hot and hearty there," he said. "You look pale. I guess you didn't sleep any too much last night."

"Oh, I couldn't sleep at all. Mrs. Nash told me that I must go the first thing in the morning, and I felt so badly."

"I shouldn't think you would want to stay with a woman like her."

"But it's so dreadful to have nowhere to go to; and, besides—"

She stopped abruptly, with a look like terror in her eyes.

"Have you no friends, then?" asked John.

"No."

The tone was very reserved; but reserve could hardly fail to melt under so sunny a presence as John Boyd's, and before the long day's ride was done he had won from her the main facts of her story.

Lucy Dill was her name. Her mother had married for the second time when Lucy was 13 years old, and three years ago, when the girl was barely 15, had died, leaving her to the protection of her step-father.

"She didn't know what kind of a man he was," said Lucy. "And he wasn't that kind of a man when she was alive. I was too young to notice much, and mother always put herself between him and me when things went wrong. After she died it was dreadful. Elkins—that was his son—came home to live. He never lived there before, and—and he—"

"Wanted to marry you?"

"Yes; and his father said I must. But I was afraid of him—of them both. And people began to come to the house—bad people, no good—and I began to suspect things."

"What kind of things?"

It was not easy to get an answer to this question. In fact, the terrified and inexperienced girl hardly dared to formulate her own fears; but John gathered the idea that coining or some other unlawful practices were going on, and Lucy, only half-comprehending, had understood enough to startle and frighten her into making her escape. She had effected this by night, six weeks before, and her great dread was of being discovered and forced to go back. John reassured her as well as he could.

"You'll be just as safe at the farm as in an iron safe," he protested.

But, in spite of his assurances, the lurking terror never left Lucy's eyes though weeks sped safely by, and nothing occurred to alarm her. Every sudden noise made her start; the sight of a strange figure on the road blanched her roses to paleness. Except for this fearfulness, she proved an excellent "help" in all ways—quick, neat-fingered, sweet-tempered. Old Barbara wondered how the farm had ever got along without her, and John in his secret heart wondered also. It never should be without her again—on that he was firmly resolved.

"Lucy," he said one day, three months after she became his inmate, "I'm tired of seeing you jump and quiver, and scud the upstairs whenever the peddler or the ragman comes along. It's bad for you, and it worries me almost to death. Now, there's just one way that'll make all safe,

and set your eyes at ease, and that is, that you should just marry me out of hand, and give me the right to protect you. Once my wife, I shouldn't care if your step-father and all the gang came after you; let them lay a finger on you at their peril, while I'm alive and have a right to interfere. Will you, Lucy? It's the best thing to be done, trust my word for it. I don't mean to pretend that I'm doing it for your sake entirely," added John, with a broad smile, "for I ain't. I want you for my own sake the worst way, but both ways it will be a gain; so, unless you have something against me, say 'yes,' Lucy, and we'll have the parson over to-morrow, and make all safe. Will you, Lucy?"

"Oh, how could I have anything against you?" replied Lucy, with the sweetest blush.

"Well," declared John, a moment after, as he raised his head from his first long lover's kiss, "now I forgive Mrs. Nash!"

—Harper's Bazar.

How Peter the Great Built St. Petersburg.

During the war between Russia and Sweden, began in 1699, Peter conceived the design of building a great city, with the view of making it the commercial and naval capital of his kingdom. With him to think was to act, and he had great resources at his command. In the course of his campaign against the Swedes, he arrived on the banks of the river Neva, some distance above its mouth. He found it pretty wide and deep enough for navigation.

Near the mouth of the river there was an island, the name of which was then almost unknown. Here he determined to erect fortifications to defend the entrance of the stream. It was several miles distant from the place where he had decided to lay the foundations of his city, and was in the centre of the bay leading towards it.

He decided to place a strong fortress on the island, so that his guns could command all ships passing through the channel leading up to the bay. Late in the fall and early in the winter of 1703 he began operations. The fortress was to be placed on a sand bank projecting from the land into the channel about the length of a cannon shot.

It was surrounded on all sides by water, so shallow that it could not be approached by land or sea, and therefore could be made almost impregnable. He laid the foundation on the ice. This consisted of immense boxes of plank and timber loaded with stones, which sank into the sand when the ice melted, forming a solid foundation upon which he could build to leisure. This was the beginning of the celebrated and impregnable castle and fortress of Cronstadt. And by means of this great fortress, even to the present day, the navies of the most powerful nations of Europe have been held in check and prevented from reaching the city.

Peter also caused to be erected several detached batteries on different parts of the island. On account of the shelter and protection which these fortifications afforded, the czar was enabled to realize the great dream of his life, to build for himself a strong and successful navy, so that he soon grew able to keep the navy of King Charles at bay, besides successfully invading the Swedish territory along the coast.

Peter determined that the city should be a lasting memorial of himself, and he therefore named it St. Petersburg.

At a short distance from the shore lay Lake Ladoga, whose outlet is the river Neva. His fortified island would defend his city and the water of the river was deep enough to afford an entrance for ships. There was no town, only a few fishermen's huts, and the ruins of an old fort a few miles above.

This spot he determined to make the site of his St. Petersburg, and in the spring of 1703 he began operations.

Peter remained upon the ground a great part of the time, personally superintending and urging the operations of the men. It is commonly reported that he planned the fortifications and the streets of the city. This new-born city was built at the cost of the lives of 100,000 men. But Peter cared not for this. Human life weighed lightly in the scale with his ambitious plans. What cared he that his new city first saw the light over one vast tomb? In his own mind he felt that the overwhelming joy which thrilled him when his precious city was once firmly established, would balance even the dying groans of anguish, misery and want of his hundred thousand victims.

What to him was a human life more or less? The loss could be easily repaired by sending to the provinces for more men. These men were serfs and were obliged to submit. A vast concourse of laboring men were assembled, but so limited was the supply of implements that much of the earth needed for dykes and embankments was brought long distances by the men in their aprons or bags made out of old mats or anything else that they could get. Meanwhile the supply of provisions was nearly always short. It was estimated that not less than 300,000 men were assembled during this Summer. Had Peter been a tender-hearted man he must certainly have been appalled at the situation.

His men had no shelter at night but the stars, sky, and working all day through mud and rain great numbers of them became sick from fevers and exposure. But he cared neither for the sufferings of his men nor the loss of human life. He cared for nothing so long as his great work went on unimpeded. If trees were felled and transported it matters not how it was done. If ditches were dug and embankments raised, dikes and levees made along the margin of the stream, roads made and forests cleared away, it made little difference to him by what suffering it was accomplished. The first building erected was a low, one-story, wooden structure, to be used by himself as an office and place of shelter. This was preserved for a long time as a precious memorial of the founder of the great city.

After the land was surveyed and the streets laid out, Peter laid the foundation of an imperial palace, and the nobles commenced the building of their houses. Places were set apart for pleasure grounds,

royal palaces and public edifices, open squares, docks, markets, etc.

After this, streets were offered to any one who would build for himself a house on them. A great many people availed themselves of this privilege although, in many instances, these houses were rude huts, or shanties, hardly sufficient to afford shelter from the inclement weather. It has been estimated that in one year 30,000 of these huts were erected. Verily it was a marvellous city that sprang into existence at the bidding of Peter the Great.

Wonderful Automata.

Archytas, of Tarentum, is reported so long ago as 400 B. C., to have made a pigeon that could fly. The most perfect automaton about which there is absolute certainty, was one constructed by M. Vaucanson, exhibited in Paris in 1738. It represented a flute-player, which placed its lips against the instrument, and produced the notes with its fingers in precisely the same manner as a human being does. At a more recent date M. Vaucanson made a flagolet-player, which in one hand beat a tambourine; and in the same year he produced a duck. The latter was an ingenious contrivance; it swam, dived, ate, drank, dressed its wings, etc., as naturally as its live companions; and most wonderful of all, by means of a solution in the stomach, it was actually made to digest its food. An automaton made by M. Droz drew likenesses of public characters. Some years ago a Mr. Faber contrived a figure which was able to articulate words and sentences very intelligibly, but the effect was not pleasant. The chess-player of Kempenen was long regarded as the most wonderful of automata. It represented a Turk of natural size, dressed in the national costume, and seated behind a box resembling a chest of drawers in shape. Before the game commenced, the artist opened several doors in the chest, which revealed a large number of pulleys, wheels, cylinders, springs, etc. The chessmen were produced from a long drawer, as was also a cushion for the figure to rest its arm upon. The automaton, not being able to speak, signified when the queen of his antagonist was in danger by two nods, and when the king was in check by three. It succeeded in beating most of the players with whom it engaged, but it turned out afterwards that a crippled Russian officer—a very celebrated chess-player—was concealed in the interior of the figure. The figure is said to have been constructed for the purpose of effecting the officer's escape out of Russia, where his life was forfeited. So far as the mental process was concerned, the chess-player was not, therefore, an automaton; but great ingenuity was evinced in its movement of the pieces.

A Strange Story About Spiders.

I observed a very curious thing one day in the meadows. A strong wind was blowing from the west, the air was clear and warm and the chimney swallows were unusually about and above my head. There was quite a swarm of them, and they came down in a body with the wind, apparently feeding on something too small for me to discern. After watching them for some time, and as the company of birds had nearly passed by, I raised my arm and shot one of them, and on opening his mouth I found it to be full of small spiders, all freshly caught, and most of them still alive. But how could spiders, being wingless, fly through the air in the fashion which the actions of the birds would indicate? I looked more closely about me, and soon found out.

By gazing intently against the clear sky in the direction of the sun, I could see small black bodies drift back now and then, with a long, slender, glistening filament stretched tremulously into the air. These bodies were spiders, with their legs closely wound about them. The lifting power of the heated air and the weight of the tiny aeronauts made an equivoque and I drew a picture to myself of how the venturesome creatures started. I could see a spider climbing to top of a tall spire of grass, and sending up his almost imponderable thread as a boy does his kite, then feeling the tug and pull of it until his sense told him it would bear his weight, and finally letting himself go.

New York Sun.

A Bottomless Lake.

The New York Sun speaks of a well known lake in central New York, as follows:

"If you are ever drowned in Cayuga lake, your friends need not go to the expense or trouble of dragging the lake for your body, for they'll never find it."

This was the cheerful remark made by a resident of Ithaca who has a taste for geological research and who has indulged it during the past few years in investigating the bottom of Cayuga lake.

"From all I have been able to discover," said he, "the bottom of Cayuga lake is a series of large openings and cavities, many of them resembling the craters of extinct volcanoes. Some of these are a hundred feet in diameter, and are all surrounded by rims, like the sides of a milk pan. These craters, as I believe they are, lie at different depths, or rather, are of different heights. Their depth I have never been able to sound, although

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BLES.

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BETWEEN THE LINES.

"Dear Mr. Brown—I know she meant
"Dear Jack," that D with sentiment
is overweighed. She did not dare:
That letter in the M shows where she
She hesitated.

The darling girl! What loving heed
She gives the strokes; it does not need
To note the lingering, trusting touch;
As if to write to me were such
A consolation.

"The flowers came, so kind of you,
A thousand thanks!" Oh, do! Miss Prue,
The line betrays you.
You know just there you sent a kiss:
You meant that blot to tell me this,
And it obeys you.

"They gave me such a happy day;
I'm sure you, she means to say,
"Please you sent them."
Then, you see, the page is small;
She wrote in haste—the words—and all—
I know meant them.

"At night I kept them near me, too,
And dreamt of them," she wrote, "and you,"
But then, you see, the page is small;
She wrote in haste—the words—and all—
I know meant them.

"Did she but have one tender thought,
That perished with the blush it brought,
My love would trace it.

"This morning all the buds have blown,"
That flourish, surely, is "Your own,"
"I'm written queerly;
She meant it so. Ah! useless task
To hide your love 'neath such a mask
As that 'Sincerely'.

"Pardon me. Those tender curves confess
Amidst me as a caress.
And, Prue—you know it:
But then, to tease me, you must add
For other means, although you had
Scarcely space to do it.

A dash prolonged across the sheet
To close the note? The little cheat—
No, when she penned it
She meant its quivering length to say
That she could write to me for aye,
And never end it.

Prue! Love is like the flame that glows
Lest, till lightly flamed it grows
Too fierce to quell it.
And mine! ah! mine is unconfessed;
But—; that dash and all the rest—
I'll have to tell it.

H. C. Foulkner.

Andersonville.

A correspondent of the Iowa State

Register, who recently visited the site of

the "prison pen" for Union soldiers at

Andersonville, writes as follows:

Twenty years have come and gone since

the enactment of the great tragedy at

Andersonville that will forever associate

this obscure little town with horrors in-

describable. The driving rains of twenty

winters have beaten upon the sandy

slopes of the old enclosure where there

was cooped up within its walls more of

human misery than was ever before found

upon an equal area of earth's surface. I

have traced out the three stockade walls

by the continuous ridges of decaying

palisades that marked the lines they oc-

cupied. On the west side many of the

palisades have been cut down and split

into rails, while most of the others have

rotted off and lie in decaying masses on

the ground. Here and there a few black-

ened sentinal still stands in the place as

it was planted in 1864. On the east side

the main line of palisades remains in a

fair state of preservation, showing the

bright and strength of this formidable

wooden wall.

The old ditch that surrounded the stock-

ade is still plainly visible on the south,

rest and east sides, although in places it

is nearly filled by washing and caving in.

On the north and south sides the timbers

of the stockade have been removed in

clearing up the ground for cotton plant-

ing. Two negroes with a mule came by

marking out the ground for the rows of

cotton on the south side of the creek. On

the north side many of the old wells re-

main in a good state of preservation. I

counted over 20 of them ranging in depth

from 10 to 30 feet. Young pines, oaks

and blackberry bushes have grown up

thickly all over this side. The mounds

and depressions where caves were dug by

the perishing prisoners are plainly to be

seen all over this sandy side hill. The

massive old gates at the west entrance

have fallen down, and the owner of the

land is working the timbers of which they

were constructed into canes to be sold as

relics of the old stockade.

Outside of these gates on the road to

Ward's old bakery, where the unbaked

corn meal and fat bacon were cooked for

the prisoners. Leading from the stock-

ade at the railroad station to the stock-

ade is the old corduroy road along which

the teams transported the meal and bacon

to the bakery. The ground was so

swampy that logs had to be cut and laid

side by side for a quarter of a mile to

make a road that would bear up a team

and wagon. In looking for relics I found

ascanting, two by four, sticking in an

old well, that was once a part of the

"dead line." My guide was Dr. Harrison,

who was a surgeon in the Confederate

from the white sand in a stream large
enough to supply the city of Des Moines
with drinking water; but not being dis-
posed to accept the "special providence"
theory without a thorough investigation,
I sought out the oldest resident of the
place, M. P. Suber, the station agent,
who has lived here 86 years, and asked him
to tell me what he knew of the origin of
this spring. He informed me that he had
known the spring for more than 80 years.
That when this region was an unbroken
forest, this spring was a favorite resort
for deer. That when the stockade was
erected in February, 1864, the workmen
in excavating the trench filled up the
spring so that the water oozed through
the sand to the creek below without ris-
ing to the surface. The flood that swept
the stockade walls away during that ter-
rible August storm washed the earth from
over the spring, and it again burst out
clear and strong as of old. The famishing
prisoners, knowing nothing of its exist-
ence heretofore, naturally regarded it as
an especial gift for their benefit.

One of Ingersoll's Stories.

Bob Ingersoll tells—in private, though
—a good story at his own expense, but one
which we see no reason should not be en-
joyed by the world at large. It seems
that while Ingersoll was in Cleveland,
soon after his successful legal fight for the
star routes, a sort of anti-tobacco crusade
had been started in that city, and a well-
known Boston scientist was delivering
nightly lectures against the use of the
soothing weed. This speaker invited
others to argue the question with him,
but, although the smokers were in the
majority, the Boston man invariably
proved too clever for the debaters
brought against him.

Availing themselves of Ingersoll's pres-
ence, some of his friends begged the great
orator to take up the cudgels in behalf
of the tobacco users; which he condescended
to do, more for a joke than any serious
reason.

That evening the hall was jammed, and
when the prohibitionist requested an an-
swer to his arguments, Bob solemnly
arose and said he would reply to the state-
ment of his eloquent friend by the relation
of a simple incident. He said:

"I was once attending to a mining case
in one of the wildest and most lawless
regions in Utah. A murder had recently
been committed by a notorious thief, and
a committee of local vigilantes were
watching for him at every crossroad. Just
after nightfall I was riding back to the
town from the mine mounted on a white
horse. The vigilantes had received infor-
mation that the desperado in question
would pass the very road the same even-
ing also riding on a white horse. The
posse had ambushed themselves in some
chapparal, and as I came down the bridge-
path they got ready to fire altogether—for
they waste no time on trials in that sec-
tion. Entirely unconscious that half a
dozen shotguns were sighting my shirt-
front, I stopped my horse, struck a match,
and proceeded to light my cigar. Think-
ing that the light would give them a still
better mark to shoot at, the concealed
party held their fire for a second. In that
second the blaze of the match reflected on
my features, revealing they were not
those of the man they awaited, and, step-
ping out on the road, they congratulated
me on my narrow escape. And so, ladies
and gentlemen, if I hadn't had the good
fortune to be a smoker I wouldn't be here
now."

"And you call that fortune?" grimly
asked the anti-tobacco lecturer, after the
applause had subsided.

"Wasn't it?" inquired Bob, with a
plaintive smile.

"I don't see it," thundered his oppo-
nent. "If it hadn't been for that miserable
cigar there would have been one less
lawyer in the world."

And, amid the roar that followed, In-
gersoll sat down, completely knocked out
in one round.—*San Francisco Post.*

New Rugby.

A newspaper correspondent who has
been visiting Rugby, in East Tennessee,
writes:

Rugby, as a town, is not dead, mainly
because it has never had strength enough
to go into final convulsions. A Georgia
man hit it off for me thus:

"Did you ever go a-shin'," he said,
waving back all interruptions, "with a
four-dollar liverly team, a three-dollar
tackle, a dollar lunch, fish all day, spile
your clothes, get sunburnt and catch a
cussed little yellow catfish with his head
jutting out his tail?"

I intimated that I had been through
some such experiences.

"Well," he said, "that's the kind of
town Rugby is."

Rugby is certainly not growing, and so
far as I can see, there is no one worrying
about it. They have a lawn tennis club,
a social club, an amateur brass band, a
library and a church, and good fishing
and hunting. Added to this, many of the
colonists have some independent income,
and why should they fret themselves pre-
maturely gray?

The fact is that good Tom Hughes's
literary fame clothed this town with an
importance not its due. The newspapers
called universal attention to it, and public
interest ran to and fro around it like
courtiers at the birth of an heir apparent.
But Rugby could not inherit Tom Brown.

It was born simply a baby—with a some-
what rickety constitution; and is just
now in the teething period. It is built of
fair wooden cottages, has a population of
about two hundred, mainly English, and
since their typhoid fever experience three
years ago, has been very healthy. It has,
however, but few of the elements neces-
sary for rapid growth. No bad smelling
water for invalids to drink, no manufac-
tures and no mines near enough to do it
any good.

If it ever grows to be anything of con-
sequence it will be as a country market
town or a summer resort. Indeed in the
latter capacity it may justly claim consid-
erable importance already. The scenery
is bold and varied, for we are quite on
the top of the Cumberland Mountains; the
atmosphere is clear, sweet and wonderfully
bracing; the nights cool; hunting and fish-
ing excellent; points of interest all around;
quiet and shade, a good hotel and small

prices. "Tabard Inn," the hotel, is neat,
airy, finely situated, and has for a master
a man who knows how to make his guests
comfortable.

There are a number of persons now at
Rugby who will witness that Rugby air,
1410 feet above sea level, has great cura-
tive power over the most stubborn cases
of asthma, catarrh, dyspepsia and malaria.
It is already patronized by a good class
of summer boarders from all over, and
ought to be especially favored by people
who are fagged and hot; who do not care
for the swarms of fashionable watering
places, but who want to rest and coax
back the roses to cheek and lip.

Electric Headlights.

The latest application of electric light
is one of the most wonderful. Ever since
its discovery railroad men and inventors
have been trying to adapt it to use as a
locomotive headlight. The trouble was
in the oscillation of the great engine
frame, which shook the carbons together.
Some Ohio and Indiana men have invent-
ed a perfectly balanced lamp to hold the
carbons. It has been running for thirty
days on the Pan Handle Railroad, between
Bradford Junction and Indianapolis, and
has been a success. John F. Miller, su-
perintendent of that division, declared it
was perfect. It is run by a little engine
and dynamo placed on the side of the
locomotive back of the Westinghouse air
brake. The engine is, of course, in con-
stant motion, and fed direct from the
boiler by a one-eighth-inch tap. This
invention will make travelling at night
safer than in the day time. The electric
light will show an obstruction a mile
away. Collisions mostly occur on curves,
but the cone of light sent out from one of
these headlights would pierce the dark-
ness so far in a straight line as to be seen
from any part of the curve. It is said the
Pennsylvania Railroad purpose to put it
on all their engines. It is the most im-
portant invention for railroads since the
Westinghouse air-brake.—*Age of Steel.*

Bad Whiskey.

A preacher in Chicago, Rev. Mr. Greene,
has hit on the right way to preach tem-
perance, as appears from the following
extract from a recent sermon:

"During the last week some fifteen
samples of alleged liquor were brought for
me at the leading saloons, and they have
undergone a chemical test at the College
of Physicians and Surgeons. The first
thing the test tube discovered was that the
fluid was not whisky at all, but what is
called neutral spirits, and unfit for a man
to drink. The first sample was brought on
Harrison Street, near Fifth Avenue. It
was purchased as rye whisky. Here are
its ingredients: Sixty-five per cent neu-
tral spirits, essence of lime or concentra-
ted lye, the rest, water mixed up with
glycerine, colored with burnt sugar, and
cleared with arsenic enough to kill in one
pint. A bottle of gin from Fourth Ave.
near Polk Street, contained besides neu-
tral spirits, turpentine and blue vitriol. A
bottle of bourbon contained sulphate
tincture, chronic acid, arsenic, and fuso-
oil. That was forty-year-old Kentucky
whisky. A bottle of 1870 cognac, which
cost \$6.50, was prepared of alcohol and
water, burnt sugar, flavored with spirits
of cognac, ether sulphur, and arsenic to
make it sparkle. Thus it will be seen
that young men are cheated of life in
these man traps of Hell, and to visit them
is like standing over the crater of a vol-
cano. I say to you young men, stop."

Two Parrots.

A parrot in Boston had learned to im-
itate the whistle of a man calling his dog.
On one occasion, when a dog happened
to be passing the shop, the parrot uttered
a loud whistle, whereupon the dog re-
turned, and with a hesitating manner be-
gan cautiously to enter the shop to find
his master there. Just as the dog made a
halt of uncertainty, seeming at a loss
which way to proceed, the parrot ex-
claimed in a loud tone of voice, "Get out,
you brute!" and the astonished dog re-
treated, leaving his tormentor to enjoy
his joke.

A grey parrot from his cage com-
manded a view of the harbor of a seaport town,
and as it daily watched the caters had
picked up some of their phrases. One
day a driver left his horse and cart on the
quay, while most likely he himself was
tipping in the nearest tap-room. The
parrot thereupon began to try its powers.
"Back! whoopee—back there," it cried,
and encouraged by the success of its ex-
periment, it kept repeating the words till
the poor horse backed over the edge of
the pier, and was drowned in the sea.

VARIETIES.

HADN'T COME.—"Is Mr. Rockville in?"
asked a man, entering an office and addressing
a lady looking fellow.

"No."

"Has he been here to-day?"

"No; hasn't come to-day."

"When do you think he will come?"

"Have no idea."

The man went away and about two hours
later again entered the office.

"Has Mr. Rockville come yet?"

"No; haven't seen him."

"My business with him is very important,
and should be come before I return I wish you
would tell him that General Maley has called."

"All right."

Several hours afterwards the General called
again.

"Has he been here?"

"No, sir."

"Well, I don't see what's keeping him away.
He wrote me that he would be in his office by
nine o'clock."

"Perhaps he's there."

"What! isn't this his office?"

"No, sir."

"Why in thunder didn't you tell me?"

"Why in lightning didn't you ask?"

"You are a fool."

"I'm all right. You are the fool."

"Blamed if I don't believe you're right. Let's
go over here and take something."—*Arkansas
Traveler.*

A VALUABLE ANIMAL.—Senator Lamar,
of Mississippi, tells a good story of a horse
trained in his town just after the recon-
struction period. One day a tall, scrawny,
ragged individual, mounted on a sway-backed
skeleton of a horse, rode down the main street,
and stopping in front of a hotel, where a large
crowd was sitting around, shouted:

"What am I offered for this magnificent
horse, fresh from the Blue Grass region of
Kentucky?"

No one replied.

"Who will bid the bidding for this spirited
steed at one thousand dollars?" continued the
equestrian, and still no one said a word, al-
though there was a smile on every face.

"Gentlemen, you will never have another
chance like this to secure the best saddle horse,
carriage horse, draught horse, and running horse
again. He's the finest animal afoot. What
am I offered for him? He's worth his weight
in gold—he's a magnificent animal. Who'll
start her at seven hundred and fifty dol-
lars?"

No reply.

"Gentlemen!" shouted the man, "I'll say
my last word. 'What's bid for this grand
horse?'"

A little, thin man with a squeaky voice,
piped out:

"Three dollars."

"Take him, Colonel," cried the man, alight-
ing. "I ain't no hard man to deal with. Gim-
me three dollars and he's yours."

The little, thin man backed out and the
seller departed. His feelings were hurt.

(Continued from first page)
skimmed-milk, oat-meal, oil-meal, etc., and have done well.
The pastures on this farm are excellent, and the meadows, while not surprisingly rank in growth, were very thick. A variety of grasses, some 13, had been sown together, and the result was that the ground was covered very closely. Hay was in progress here, as Mr. Phillips thinks hay can hardly be cut too early to retain its good qualities, its bright color and its fragrance. Such hay, he finds, makes the best feed for dairy stock.
This visit has caused us to change preconceived opinions of the agricultural possibilities of Bay County, and as the land is drained and brought more generally under cultivation, if this county does not rank very high in agricultural production we shall be much surprised. There is something in friend Lewis's "garden soil" after all.

FASHION IN SHORTHORN CATTLE BREEDING.

As intimated in our former articles Charles Collings had at the time of the closing out sale of his herd of Short-horns won the greatest celebrity of any breeder of his or previous to his day. He had inaugurated a new plan of breeding, widely different from that of any other breeder. The former method of breeding had been to breed together animals that were not in the least related in blood; but the Collings, after visiting and observing the operations of Robert Bakewell, the originator of the system of inbreeding, decided to follow him, and he carried out his plans and operations as secret as far as possible, and shrouded his own peculiar breeding in a great mystery. He instituted a system of inbreeding which they carried so far, that one unacquainted with the results would have considered it disastrous to the whole herd of cattle with which they were experimenting. Their mode of procedure was closely watched by their contemporaries, and about it there was many a rich comment and bold criticism.

The main object sought by the Collings in breeding was to produce "fine forms, small bones and a disposition to make fat readily." Previous to this large bones were esteemed the criterion of excellence, whilst the carcass was forgotten. In the year 1710 the average weight of beef cattle at Smithfield was 370 pounds each. In a report of a select committee of the House of Commons in 1795 it is stated that since 1783 their cattle had increased in weight on an average one quarter, or twenty five per cent, making the weight at that time 462 pounds. Few animals were then fattened, even to this light weight, under five years old, while thirty years later they were considered ripe at four years. Some of the earlier breeders, Mr. Hill and Mr. Milbank, had fed some of their Short-horns to weigh a little more than 2 thousand pounds. While the other breeders were boasting of the enormous size of their cattle the Collings were breeding from near affinities of blood, as sire and daughter, son and dam, brother and sister, and they carried this to several generations. In one instance, that of the cow Clarissa, it was carried to the sixth cross, she having sixty-three sixtieths of the blood of her sire Favorite. The universal comment was that the Collings were destroying their cattle. At this juncture Charles Collings had a calf sired by his inbred bull Favorite (252) and out of a "common cow," but which undoubtedly had much of the "common" Short-horn blood of the day. This calf was made a steer and fed by Mr. Collings up to his greatest flesh-taking capacity until he was five years old, when he had attained a weight of over three thousand pounds. This wonderful animal, called the "Durham Ox," was exhibited throughout all England and Scotland as the great prodigy of the day, and was gazed upon with wonder by thousands of people. At the age of ten he became disabled and was slaughtered, weighing over 3,400 pounds alive and 2,620 pounds dressed. His fine proportions and thick meat proclaimed the superiority of the blood of the Collings' cattle more forcibly than language could have done, and gave them a reputation throughout the entire kingdom as having the best cattle in the world. From the time the Durham Ox started on his travels the ignorant critics were silenced in regard to their carping against inbreeding and it is not a wonder that the Collings were considered the fashion.

Contemporary with the Collings was F. C. Booth, who proved to be the most conspicuous figure among the rival breeders at the time, and continued to be several years after the Collings retired. He was not a servile imitator, but after the Durham Ox was exhibited throughout the kingdom and drew universal attention to the Short-horns, he did what wisdom dictated and purchased bulls from the Collings, thereby incorporating some of their best blood into his herd. Not breeding sire to daughter, son to mother &c., as did the Collings, he bred upon his herd bulls that were in-bred, and each successive bull had a large percentage of blood like that of his predecessor. To illustrate: Pilot (496) was sired by a bull Major (398) who was by a son and grand son of Favorite (252); his dam by a son of Favorite, and his grand dam by Favorite. Alphon (14) another bull used largely in the Booth herd, was by a bull that was both a son and grandson of Favorite; his dam was by a son of Favorite, and his grand dam by a bull who was not only a son of Favorite, but also of Favorite's half sister. Marshall Beresford (415) a bull used both in the Booth herd and that of Major Power, was by a son and grandson of Favorite, his dam by a grandson of Favorite and grand dam by Favorite.

Booth succeeded in breeding a herd of Short-horns that were possessed of great excellence, and it became a popular (or fashionable) place for other breeders to resort when they were in quest of bulls to breed upon their herds.

Previous to and during the career of Mr. T. C. Booth breeders had placed a very high estimate on the milking properties of their Short-horns. Their cattle had been allowed free range of their luxuriant pastures, in fact high feeding with grain was not practiced, and the manner in which the cattle were kept had a tendency to develop their milking capacity. The early breeders had striven to establish a good and valuable race of cattle that combined, in a degree, both milking and feeding properties, and in this they succeeded, and the cattle only needed the science and energy of modern days, stimulated by the enhanced values of agricultural products, to become the valuable and popular breed we now find it. Mr. Booth had views differing in respect to the milking properties of his cattle from those of most breeders of his time. It is said that he maintained that "the external conformation—subject to some modification by the other parent—is mainly imparted by the male, and the vital and nutritive organs by the female." Acting on this hypothesis, he was careful to select such well framed cows only as evinced an ample capacity of chest, a robust constitution and a predisposition to fatten, and such moderate sized males as possessed external points and proportions he deemed most desirable to impress upon his herd. In the selection of cows he often was compelled to accept those that were steeper than the head to get the robust constitution he so much desired, and it is claimed by some that they can see some of the steeperness about the heads of some of the females of the Booth families to the present day. It is related by Mr. Carr that when Mr. Booth was once chided upon this point, and the milking capacity of his cows was questioned, he said: "Look here!" pointing to their broad backs, "is not that worth a few pints of milk?" We think we are safe in asserting that Mr. T. C. Booth was the first to breed Short-horns for beef and beef only, and therefore was the institutor of that fashion in Short-horn breeding.

Following T. C. Booth in the business of Short-horn cattle breeding came his son Richard Booth, who not only inherited his father's name but a full share of his skill as a breeder. He made selections for a foundation of his herd of some of the best representatives in his father's herd and an occasional purchase from Darlington market, that are recognized to-day as the foundation individuals of some of the best families of Booth Short-horns. In one case he purchased in Darlington market a cow that was the foundation of his Isabella family, and her descendants possessed a massive fore-quarter and straight under lines hitherto unknown. Mr. R. Booth bred Short-horns with great success, but maintained an opinion that subjected him to severe criticism by one of his able contemporaries, Thomas Bates. It was Mr. Bates's opinion, and we believe he carried his theory into practice, that "four crosses of really first-rate bulls of sterling blood upon a good market cow of the ordinary Short-horn breed should suffice for the production of an animal with all the characteristics of a high caste Short-horn." About the time Mr. R. Booth entered upon his career as a breeder the fashion of fitting by fattening cattle excessively for the show ring was introduced by a Mr. Crofton. He practiced horse-feeding his cows and heifers in the summer preparatory to showing at the fairs, and of course swept all before him. But the Booth herd was equal to the emergency; as they had been bred almost solely for beef they were eminently qualified to enter the contest in the show-ring; loaded with their coats of flesh that they could take on very easily, and trained with the unerring skill of their breeder, they took the lion's share of the prizes offered for many years successively, and in this respect were looked upon as the champions of England. A rival came up in Thomas Bates, who demanded and won a share of the honors in Short-horn breeding and has, so far as fashion goes, left Mr. Booths many times in the shade. To him as a breeder, and his fashion of breeding, we will refer in our next. (To be continued.)

Veterinary Department

Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse Training Manual," "Cattle and their Diseases," "Sheep and Poultry," "Horse Training Manual," &c. For further information, apply to the Editor of the Michigan Farmer, or to the author, Prof. Robert Jennings, 201 First Street, Detroit.

Leucorrhoea in a Mare.
SALT RIVER, June 3, '84.
Veterinary Editor Michigan Farmer.
DEAR SIR:—I have gray mare 12 years old, that is troubled with the "whites," so some call it, a milky white fluid coming from her quite often through the day; has had no treatment; eats well, and looks well. Would it be advisable to breed such a mare, and would there be any danger of a horse getting any disease in serving such a mare? Any information will be gladly received.

Answer.—The disease in your mare is no doubt leucorrhoea, or whites. Usually the result of exhaustion or debility from winter cause. All discharges from the urethra, however produced, may be contagious. To breed to such an animal while the discharge is present may not be attended with contagious results, yet it would not be advisable to use her for breeding while the discharge existed. Treatment: Wash the parts clean, then inject the following twice a day. Chloride of zinc, one drachm, rain water eight ounces, mix, shake well before using. Give internally the following: Sootine aloes pulv., sulph. iron pulv., of

each one ounce, gentian root pulv. 2 oz., Jamaica ginger root pulv. 1 1/2 oz., mix all together and divide into twelve powders. Give one powder night and morning in the feed.

Vaginal Tumor in a Ewe.

DURHAM, June 15, '84.
Veterinary Editor of the Michigan Farmer.
DEAR SIR:—A large blood red ball the size of an orange protrudes from the birthplace of one of my ewes. Seems to be raw and bleeding. She has a desire to urinate often, but can void but little; at to reappear in a little while; she has a lamb by her side, appears all right in other respects, feeds well and is smart and lively. If you can, please tell by this brief description what the trouble is, and what I must do; has received no treatment.

Answer.—The character of the enlargement protruding from the vagina of your ewe, we cannot from your description determine. Occasionally we find in the vagina of all animals morbid growths, varying in size from that of a pea to that of a large walnut, sometimes connected with the urethra, causing much uterine irritation. Uterine polypus occasionally occurs in our farm stock, which is pear shaped and attached by a narrow neck, causing discharges often of a fetid character. Incysted tumors of the labia or lips of the vagina may be the seat of incysted, sarcomatous or fatty enlargements, or hemorrhoids sometimes occur. In either case, the assistance of a competent veterinary or other surgeon will be required for its removal.

COMMERCIAL.

DETROIT WHOLESALE MARKET.

DETROIT, June 24, 1884.
Flour.—Receipts for the past week, 1,494 bbls., against 2,152 the previous week, and 1,119 bbls. for corresponding week last year. Shipments, 1,699 bbls. The market is without any features of local trade. Inquiries confined largely to the local trade. The decline in wheat has weakened holders, and a drop in prices would not be surprising. Quotations yesterday were as follows:
Michigan white wheat, choice, \$1.45 @ 1.49
Michigan white wheat, roller process, 52 @ 55
Michigan white wheat, patents, 6 @ 62 1/2
Minnesota, bakers, 52 @ 55
Minnesota, patents, 52 @ 55
Rye, 37 @ 38 1/2

Wheat.—Yesterday the market was dull at the opening, weakened at noon on advice of a break in Chicago, with a drop in values on both spot and futures from Saturday's closing figures. The low range of prices led to a little more activity, but the market closed dull. Closing prices on spot were as follows: No. 1 white, 99 1/2c; No. 2 do, 98c; No. 2 red, 93 1/2c. In futures values closed at the following range: June, 99 1/2c; July, 99 1/2c; August, 96 1/2c.

Corn.—Market quiet and steady but higher than a week ago. No. 2 is quoted at 57c, and rejected at 56c. A sale of high mixed was made yesterday at 57c.

Oats.—Neglected. No. 2 white are selling at 35 1/2c and No. 2 mixed at 34c.

Beans.—Quiet and steady; pickers are quoted at \$2.30 @ 2.35 for their best stock.

Butter.—The market is apparently demoralized from the heavy receipts, and good fresh packed butter is selling at 16c, while 14 1/2c is the price paid for most of the receipts. Good cream is dull at 20c @ 22c per lb.

Cheese.—Market weak and dull, with values tending downward. Receipts are quite large. Full cream State ranges from 20 1/2c @ 21c per lb. Skims are selling at 17 1/2c.

Eggs.—Steady and firm at 17 1/2c @ 17 3/4c per dozen. Strict prices, 16 1/2c @ 17c.

Dried Apples.—Dried apples are dull at 40c @ 42c. Evaporated fruit is worth 12 1/2c @ 13c. Demand very light.

Hay.—Baled hay in stock is selling at \$10 @ 11 per ton. On dock at \$12.

Potatoes.—The market is firm and steady with only a local demand. Quotations are 75c for old stock. Street prices, 70c @ 75c. New southern potatoes are selling at \$1.75 @ 2.00 per bushel.

Maple Sugar.—New, 12 1/2c @ 13c; old, 10c. Sirup, 20c @ 22c per gallon.

Onions.—Quiet and steady. Quotations are \$1.65 per crate for Bermudas.

Pears.—Choice Canada fruit, \$1.10 per bn.; Wisconsin blue, \$1.00 @ 1.05.

Honey.—Market dull at 12c @ 13c per lb. for fine white comb.

Beeswax.—Scarce and firm at 33c @ 35c per lb. in stock, and 28c @ 30c for first hands.

Strawberries.—Supplies fair and market firm. Quotations were 25c per stand for fine State stock.

Raspberries.—Few in market, and prices are \$10 @ 11 per stand.

Fresh Vegetables.—There is a good supply, and the market is steady at the following range: Beets, 20c @ 22c; cucumbers, 4c @ 5c per doz; lettuce, 25c @ 30c per bn; onions, 25c @ 30c; radishes 15c @ 20c; pea plant, 20c @ 25c; Bermuda onions, \$1.00 @ 1.05 per crate; new southern potatoes, \$1.75 @ 2.00 per bushel; asparagus, 40c @ 45c; tomatoes, \$2.50 @ 3.00 per bushel box; new cabbages, \$2.50 @ 3.00 per bushel box. \$1.00 @ 1.25, butter do, \$7.50 @ 8.00 per bushel.

Poultry.—Receipts of live poultry are light, spring chickens command about 80c @ 90c per pair, and older fowls about 10c per pound. No turkeys are offered.

Provisions.—Barrelled pork and lard are dull and lower, and fatty buyers; smoked meats quiet and unchanged; mess and dried beef are fairly active, and tallow dull. Quotations in this market are as follows:

Mess, new, 16 1/2c @ 17c
Family do, 17c @ 17 1/2c
Clear do, 18c @ 19c
Lard in tierces, per bbl, 8 1/2c @ 8 3/4c
Lard in kegs, per bbl, 8 1/2c @ 8 3/4c
Hams, per bbl, 12 1/2c @ 13c
Shoulders, per bbl, 8 1/2c @ 9c
Chests, per bbl, 8 1/2c @ 9c
Choice mess beef, per bbl, 12c @ 13c
Tailow, per bbl, 17c @ 17 1/2c
Dried beef, per bbl, 17c @ 17 1/2c

Portland, 24
Saginaw City, 24
Tebonsha, 26
Weberville, 26
Total, 78 73 35

CATTLE.

The offerings of Michigan cattle at these yards numbered 418 head, against 222 last week. The greatest part of these were killed through Buffalo, but were offered for sale here, only a few finding buyers. The receipts of western cattle numbered over 500 head, mostly consigned to the wholesale trade, a few loads only being on sale. Good cattle are held very firm at former quotations, but common grades are weak. As the run of grass Texans increases prices are gradually declining, and some classes are now quoted as low as \$3 per hundred in the west. So far the decline has not affected good cattle, the quotations for the best shipping grades being fully stronger than last week. So far as our market is concerned, we would again say to our readers that the place for half fat stock is on the pasture, and let them remain there until the run of Texans is over, when they will bring a fair paying price. The following were the closing

quotations:
Extra graded steers, weighing 1,300 to 1,400 lbs., fine fat and well formed, 1,100 to 1,300 lbs., 6.00 @ 6.25
Good mixed Butcher's Stock—Fat cows, heifers and light steers, weighing 900 to 1,100 lbs., 5.50 @ 5.75
Good Mixed Butcher's Stock—Light steers, cows, heifers, and bulls, weighing 800 to 1,000 lbs., 5.00 @ 5.50
Stocks, 3.75 @ 4.25
Bulls, 3.50 @ 4.50
McGeorge sold Oberhoff 7 fair butchers' steers at \$3.25, less 2 on the lot, and 2 on the lot at \$3.25.
Fleischman sold Burt Spencer 30 mixed western steers at \$3.25.
Lathrop sold Ross a mixed lot of 24 head of thin butchers' stock at \$3.25.
Beane sold Fleischman 8 stockers at 74c lbs at \$3.75, and 2 coarse cows at 1.375 lbs at \$3.75.
Stevenson sold Regan a mixed lot of 9 head of fair butchers' stock at 80c lbs at \$4.00.
Wright & Beck sold McGeorge 28 mixed westerns at 62c lbs at \$3.85, and 30 to 30 at 70c lbs at \$4.15.
Nichols sold Switzer & Achley 11 stockers 77c lbs at \$4, and a mixed lot of 5 head of thin butchers' stock at 80c lbs at \$4.00.
Judson sold a mixed lot of 10 head of fair butchers' stock at 75c lbs at \$3.75.
Beardale sold Burt Spencer 2 good oxen at 1.15 lbs at \$3.
Nichols sold Switzer & Achley 12 stockers at 60c lbs at \$3.75.
Beane sold Burt Spencer 2 choice oxen at 1.875 lbs at \$3.80.
Cheeseman sold Duff & Caplin a mixed lot of 11 head of coarse butchers' stock at 90c lbs at \$3.40.
Stabler sold Loosmore a mixed lot of 7 head of thin butchers' stock at 85c lbs at \$4.
Fleischman sold Diers 37 mixed westerns at 70c lbs at \$3.75, and a bull weighing 2,170 lbs at \$3.50.
Cheeseman sold Burt Spencer 7 stockers at 71c lbs at \$3.60, and a bull weighing 1,570 lbs at the same price.
Fleischman sold Hubert 19 mixed westerns at 83c lbs at \$3.80, and 28 to McGeorge at 73c lbs at \$3.45.
Wright & Beck sold Peter Rose 29 mixed westerns at 86c lbs at \$4.25.

Of sheep there were only 73 received from the State. One lot of 85 lbs sold at \$3.25, and one very common bunch at \$2.75 per hundred. The receipts from the west continue ample to supply the demand.

One lot of hogs were on sale, they brought \$5.25 per hundred and averaged 135 pounds.

King's Yards.

Monday, June 23, 1884.

CATTLE.

The market opened up at these yards with 143 head of cattle on sale, and a fair attendance of buyers. For the best on sale the demand was active and prices firm. But the supply of this class was small, and a number more could have been placed at fair rates. For common cattle the demand was a little slower, but a fair supply price was paid for most of the receipts. Good cream is dull at 20c @ 22c per lb.

Jenne sold Oberhoff 3 fair butchers' steers at 90c lbs at \$3.90, and a mixed lot of 5 head of coarse butchers' stock at 80c lbs at \$3.40.
Hogan sold John Robinson 3 fair butchers' steers at 82c lbs at \$3.26.
Richmond sold Hersh a mixed lot of 4 head of fair butchers' stock at 87c lbs at \$3.63, of 5 head of thin butchers' stock at 72c lbs at \$4.45, and 2 cows at 80c lbs at \$4.80.
Sly sold Hersh 3 good butchers' steers at 1.043 lbs at \$5.60, and 3 to Tucker at 1.133 lbs at \$5.50.
Fleischman sold Hubert 19 mixed westerns at 83c lbs at \$3.80, and 28 to McGeorge at 73c lbs at \$3.45.
Oberhoff sold Genther 3 fair butchers' steers at 96c lbs at \$3.85.
Kahaler sold Baxter 2 fair butchers' steers at 1.10 lbs at \$5.14.
Hogan sold Kolb a mixed lot of 4 head of thin butchers' stock at 71c lbs at \$3.45.
Purdy sold Yoke a mixed lot of 19 head of thin butchers' stock at 71c lbs at \$3.45.
Richmond sold Higelow 13 stockers at 59c lbs at \$3.25, and 2 fair cows to Tischer at 1.145 lbs at \$4.75.
Jenne sold Sullivan 4 stockers at 69c lbs at \$3.26.
McHugh sold Kammon a mixed lot of 14 head of thin butchers' stock at 80c lbs at \$4.14, and 6 fair butchers' steers and heifers to Fots at 85c lbs at \$4.12.
Oberhoff sold Kolb 3 fair butchers' steers at 93c lbs at \$3.75.
Platt sold Sullivan 5 stockers at 61c lbs at \$3.10.

Buffalo.

CATTLE.—Receipts, 9,968, against 8,432 the previous week. The cattle market opened up on Monday with 133 car loads of cattle on sale, a large number of which were of better quality than usual. There was a good demand for the best at prices fully as strong as the Monday previous. The best steers on sale brought \$2.50 @ 2.60; good to choice light medium weights, \$2.00 @ 2.20; and fair to good light, \$1.50 @ 2.00. Of mixed butchers' stock the supply was large, and prices were considerably lower, selling at \$1.50 @ 1.75. Receipts were light on Tuesday and Wednesday, the market ruling steady at Monday's rates. Of Michigan cattle, 18 steers at 94c lbs sold at \$5.40; 17 do at 92c lbs at \$5.25; 19 do at 91c lbs at \$5.25; 20 do at 90c lbs at \$5.20; 21 stockers at 76c lbs at \$4.25; 27 do at 87c lbs at \$4.40; 30 do at 83c lbs at \$4.30; 32 do at 82c lbs at \$4.14; 48 do at 75c lbs at \$4.00; 75 do at 71c lbs at \$3.80; 50 do at 53c lbs at \$3.30. The following were the closing

QUOTATIONS.

Extra Graded—Steers weighing 1,400 lbs and upwards, 6.00 @ 6.25
Good Bees—Fine fat, well formed steers, weighing 1,300 to 1,400 lbs., 6.00 @ 6.25
Good Bees—Well-fatted steers, weighing 1,200 to 1,300 lbs., 5.80 @ 6.00
Butcher's Stock—Inferior to common steers and heifers, for city slaughter, weighing 900 to 1,000 lbs., 5.50 @ 5.75
Stockers—Thin, light steers, weighing from 600 to 800 lbs., 3.50 @ 4.75
Interior—Light and thin cows, heifers, steers, bulls and calves, 2.00 @ 3.75
Veals—Per 100 lbs., 4.50 @ 5.75
Horn—Receipts, 136,968, against 117,888 last week. Shipments, 18,852. The supply of hogs on Monday numbered 36,000. Business opened in a dragging way at a decline of 10 cents per hundred below the rates of the Saturday previous, and before the close sellers were unable to procure with 30 cents of Saturday's rates. The receipts fell off on Tuesday, and on Wednesday for the best grades the market was 50 to 100 cents higher, but on Thursday and Friday things took a little change, and prices were 20 to 25 cents lower. On Saturday there was another weakening in the market, and at the close poor to prime light choice heavy, \$4.00 @ 4.50, with skips and culs at \$3.25 @ 3.50.

NEW ADVERTISEMENTS.

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100 YOUNGER STALLIONS,
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during the season.
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DETROIT, MACKINAW & MARQUETTE RAILROAD.
January 24, 1884.
Pioneer East and West Line through the Upper Peninsula of Michigan.

EAST. ACCOMMODATION. WEST. EXP. ACCOMMODATION.
P. M. A. M. P. M. A. M. P. M. A. M.
9:00 8:30 L...Marquette...A. 5:50 7:00
10:12 9:42 L...Bay City...A. 6:00 7:15
10:37 10:07 L...Antrim...A. 6:00 7:15
11:22 11:15 L...Munising...A. 3:18 4:33
1:15 1:15 L...Sault Ste. Marie...A. 3:38 4:53
1:55 1:55 L...Munising...A. 12:34 1:49
2:30 2:30 L...Dollardville...A. 12:10 1:25
3:15 3:15 L...Newberry...A. 12:15 1:30
4:45 4:15 A...St. Ignace...A. 5:10 6:25
5:00 4:30 L...V. M. C. R. R. P. M. A. M.
7:47 9:22 L...Bay City...P. M. A. M.
10:30 10:25 L...Port Huron...A. 4:25 5:40
11:15 11:10 L...Saginaw City...A. 5:20 6:35
8:13 10:45 L...Lansing...A. 5:25 6:40
8:35 11:05 L...Jackson...A. 4:35 5:50
10:15 10:10 L...Detroit...A. 4:45 6:00
P. M. A. M. V. M. G. R. & I. R. P. M. A. M.
4:25 1:10 L...Grand Rapids...A. 11:00 12:15
2:54 1:30 L...Holland...A. 12:10 1:25
11:30 1:00 L...Fort Wayne...A. 3:15 4:30
6:10 5:40 L...Lansing...A. 9:40 10:55
9:22 11:15 L...Detroit...A. 6:25 7:40
V. M. D. L. & N. R. R.
P. M. A. M. P. M. A. M. P. M. A. M.
8:35 7:55 L...Detroit...A. 9:30
8:45 8:05 L...Detroit...A. 12:10

Connections are made at St. Ignace with The Michigan Central Railroad for Detroit and all points in Michigan and in the east, south and southeast. Trains leave Mackinaw City 8:50 a. m. and 8 p. m. The Grand Rapids & Indiana R. R. for Grand Rapids, Fort Wayne and the South and East.
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D. McCOLLARD, Gen'l Supt., Marquette, Mich.
Gen'l Frt. & Pass. Agt., Marquette, Mich.

Chicago.
CATTLE.—Receipts, 27,147, against 28,981 the previous week. Shipments, 1,346. The cattle market opened up on Monday with 4,000 head on sale, 1,500 of which were Texans. There was a fair activity in the trade, especially for those good enough for the eastern markets, and the common grades also found a fair demand. No western cattle were offered.

cattle were offered. The best on sale brought \$3.50 @ 3.75, but the bulk went at \$3.50 @ 3.75. Butcher's stock was not very plentiful, but proved sufficient to meet the demand. Sales of cows were at \$3.40 @ 3.75, while \$4.75 @ 5.00 was paid for common fair little steers. Texans sold at a wide range, running from \$3.25 @ 3.50, the latter price being paid for 319 cwt. fed. On Tuesday the receipts of cattle were light and shipping grades ruled 10 cents higher, with other classes firmer. For the balance of the week the cattle market ruled in sellers favor, and all classes made a slight advance, closing on Saturday at the following.

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